

Application for Federal Assistance

ID: 2757331
Applicant Name: Vanderbilt University Sponsored Programs Administration
Project Title: Middle Tennessee Academic Proof of Concept Program
Project Period: 01/01/2019 - 12/31/2021
Federal Funding Requested: \$395,000.00
Non-Federal Funding Requested: \$795,228.00
Fiscal Year of Funding Requested: 2018
Federal Application Receipt Date: 08/29/2018
Submitted for: FY 2018 Regional Innovation Strategies Program
Federal Funding Opportunity Number: EDA-HDQ-OIE-2018-2005523
CFDA Number: 11.020

Application Documents for Review

File Name	Description	Page
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Form SF424A-V1.0.pdf	Budget Information - Non-Construction Programs from Grants.gov	5
Form SF424B-V1.1.pdf	Assurances - Non-Construction Programs from Grants.gov	8
Form CD511-V1.1.pdf	Certification Regarding Lobbying from Grants.gov	10
AttachmentForm_1_2-ATT1-1234-i6 2018 Challenge State Letter of Commitment.pdf	Attachment from Grants.gov	11
Form ProjectNarrativeAttachments_1_2-V1.2.pdf	Attachment from Grants.gov	12
AttachmentForm_1_2-ATT2-1235-i6 2018 Challenge Letters of Commitment.pdf	Attachment from Grants.gov	13
Form BudgetNarrativeAttachments_1_2-V1.2.pdf	Attachment from Grants.gov	17
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This Application Report was produced by DoC Grants Online (<https://grantsonline.rdc.noaa.gov>) on 09/25/2018 04:05 PM EDT

Application for Federal Assistance SF-424

*** 1. Type of Submission:**

- ☐ Preapplication
☒ Application
☐ Changed/Corrected Application

*** 2. Type of Application:**

- ☒ New
☐ Continuation
☐ Revision

*** If Revision, select appropriate letter(s):**

*** Other (Specify):**

*** 3. Date Received:**

08/29/2018

4. Applicant Identifier:

U0049067 Rousos

5a. Federal Entity Identifier:

62-0476822

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

*** a. Legal Name:**

Vanderbilt University Sponsored Programs Administration

*** b. Employer/Taxpayer Identification Number (EIN/TIN):**

62-0476822

*** c. Organizational DUNS:**

9657171430000

d. Address:

*** Street1:**

110 21st Ave. South Suite 800

Street2:

*** City:**

Nashville

County/Parish:

Tennessee

*** State:**

TN: Tennessee

Province:

*** Country:**

USA: UNITED STATES

*** Zip / Postal Code:**

37203-2417

e. Organizational Unit:

Department Name:

Center for Technology Transfer

Division Name:

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:

Dr.

*** First Name:**

Peter

Middle Name:

C

*** Last Name:**

Rousos

Suffix:

Title:

Organizational Affiliation:

Vanderbilt University Sponsored Programs Administration

*** Telephone Number:**

615-322-2631

Fax Number:

*** Email:**

spa@vanderbilt.edu

Application for Federal Assistance SF-424

* 9. Type of Applicant 1: Select Applicant Type:

O: Private Institution of Higher Education

Type of Applicant 2: Select Applicant Type:

M: Nonprofit with 501C3 IRS Status (Other than Institution of Higher Education)

Type of Applicant 3: Select Applicant Type:

* Other (specify):

* 10. Name of Federal Agency:

Department of Commerce

11. Catalog of Federal Domestic Assistance Number:

11.020

CFDA Title:

Cluster Grants

* 12. Funding Opportunity Number:

EDA-HDQ-OIE-2018-2005523

* Title:

FY 2018 Regional Innovation Strategies Program

13. Competition Identification Number:

2715260

Title:

2018 i6 Challenge

14. Areas Affected by Project (Cities, Counties, States, etc.):

Add Attachment

Delete Attachment

View Attachment

* 15. Descriptive Title of Applicant's Project:

Middle Tennessee Academic Proof of Concept Program

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

Application for Federal Assistance SF-424**16. Congressional Districts Of:*** a. Applicant * b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

17. Proposed Project:* a. Start Date: * b. End Date: **18. Estimated Funding (\$):**

* a. Federal	<input type="text" value="395,000.00"/>
* b. Applicant	<input type="text" value="795,228.00"/>
* c. State	<input type="text" value="0.00"/>
* d. Local	<input type="text" value="0.00"/>
* e. Other	<input type="text" value="0.00"/>
* f. Program Income	<input type="text" value="0.00"/>
* g. TOTAL	<input type="text" value="1,190,228.00"/>

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

- ☐ a. This application was made available to the State under the Executive Order 12372 Process for review on .
- ☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- ☒ c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**☐ Yes ☒ No

If "Yes", provide explanation and attach

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name:

Middle Name:

* Last Name:

Suffix:

* Title: * Telephone Number: Fax Number: * Email: * Signature of Authorized Representative: * Date Signed:

BUDGET INFORMATION - Non-Construction Programs

OMB Number: 4040-0006
Expiration Date: 01/31/2019

SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. VU POC program		\$	\$	\$ 270,000.00	\$ 735,180.00	\$ 1,005,180.00
2. Regional POC program				125,000.00	60,048.00	185,048.00
3.						
4.						
5. Totals		\$	\$	\$ 395,000.00	\$ 795,228.00	\$ 1,190,228.00

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SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)
	(1)	(2)	(3)	(4)	
	VU POC program	Regional POC program			
a. Personnel	\$ 180,000.00	\$ 73,000.00	\$	\$	\$ 253,000.00
b. Fringe Benefits	45,180.00	18,323.00			63,503.00
c. Travel					
d. Equipment					
e. Supplies					
f. Contractual					
g. Construction					
h. Other	681,975.00	93,725.00			775,700.00
i. Total Direct Charges (sum of 6a-6h)	907,155.00	185,048.00			\$ 1,092,203.00
j. Indirect Charges	98,025.00	0.00			\$ 98,025.00
k. TOTALS (sum of 6i and 6j)	\$ 1,005,180.00	\$ 185,048.00	\$	\$	\$ 1,190,228.00
7. Program Income	\$ 0.00	\$ 0.00	\$	\$	\$ 0.00

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SECTION C - NON-FEDERAL RESOURCES					
(a) Grant Program		(b) Applicant	(c) State	(d) Other Sources	(e)TOTALS
8.	VU POC program	\$ 735,180.00	\$	\$	\$ 735,180.00
9.	Regional POC program	60,048.00			60,048.00
10.					
11.					
12. TOTAL (sum of lines 8-11)		\$ 795,228.00	\$	\$	\$ 795,228.00

SECTION D - FORECASTED CASH NEEDS						
		Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal		\$ 90,000.00	\$ 22,500.00	\$ 22,500.00	\$ 22,500.00	\$ 22,500.00
14. Non-Federal		245,060.00	61,265.00	61,265.00	61,265.00	61,265.00
15. TOTAL (sum of lines 13 and 14)		\$ 335,060.00	\$ 83,765.00	\$ 83,765.00	\$ 83,765.00	\$ 83,765.00

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT					
(a) Grant Program		FUTURE FUNDING PERIODS (YEARS)			
		(b)First	(c) Second	(d) Third	(e) Fourth
16.	VU POC program	\$ 90,000.00	\$ 90,000.00	\$ 90,000.00	\$ 0.00
17.	Regional POC program		62,500.00	62,500.00	
18.					
19.					
20. TOTAL (sum of lines 16 - 19)		\$ 90,000.00	\$ 152,500.00	\$ 152,500.00	\$ 0.00

SECTION F - OTHER BUDGET INFORMATION	
21. Direct Charges:	22. Indirect Charges:
23. Remarks:	

ASSURANCES - NON-CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee- 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

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9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction subagreements.
10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.
19. Will comply with the requirements of Section 106(g) of the Trafficking Victims Protection Act (TVPA) of 2000, as amended (22 U.S.C. 7104) which prohibits grant award recipients or a sub-recipient from (1) Engaging in severe forms of trafficking in persons during the period of time that the award is in effect (2) Procuring a commercial sex act during the period of time that the award is in effect or (3) Using forced labor in the performance of the award or subawards under the award.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL	TITLE
Michele Austin	Interim Director Sponsored Program Administra
APPLICANT ORGANIZATION	DATE SUBMITTED
Vanderbilt University Sponsored Programs Administration	08/29/2018

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Applicants should also review the instructions for certification included in the regulations before completing this form. Signature on this form provides for compliance with certification requirements under 15 CFR Part 28, 'New Restrictions on Lobbying.' The certifications shall be treated as a material representation of fact upon which reliance will be placed when the Department of Commerce determines to award the covered transaction, grant, or cooperative agreement.

LOBBYING

As required by Section 1352, Title 31 of the U.S. Code, and implemented at 15 CFR Part 28, for persons entering into a grant, cooperative agreement or contract over \$100,000 or a loan or loan guarantee over \$150,000 as defined at 15 CFR Part 28, Sections 28.105 and 28.110, the applicant certifies that to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, 'Disclosure Form to Report Lobbying,' in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure occurring on or before October 23, 1996, and of not less than \$11,000 and not more than \$110,000 for each such failure occurring after October 23, 1996.

As the duly authorized representative of the applicant, I hereby certify that the applicant will comply with the above applicable certification.

*** NAME OF APPLICANT**

Vanderbilt University Sponsored Programs Administration

*** AWARD NUMBER**

U0049067

*** PROJECT NAME**

Prefix:

* First Name:

Middle Name:

Andy

* Last Name:

Suffix:

Budell

* Title: Interim Director Sponsored Program Administra

* SIGNATURE:

* DATE:

Michele Austin

08/29/2018



DEPARTMENT OF ECONOMIC AND COMMUNITY DEVELOPMENT

BOB ROLFE
COMMISSIONER

BILL HASLAM
GOVERNOR

Date: August 17, 2018

To: U.S. Department of Commerce, Economic Development Administration

Re: 16 Challenge Grant Application of Vanderbilt University

This letter of support is submitted by the State of Tennessee Department of Economic and Community Development in support of Vanderbilt University's application for an i6 Challenge Grant. We understand that the proposal envisions the creation of a "proof-of-concept fund" that will provide resources for the development of university inventions and innovations. As we believe that universities are great drivers of entrepreneurship, innovation and economic development that could benefit from the support that a proof-of-concept fund would provide, we are extremely supportive of this application.

The Tennessee Department of Economic and Community Development works to create new jobs and new industries in the State. It is our belief that universities can be even greater contributors to such development with the kind of assistance this grant would provide.

We look forward to working with Vanderbilt and the other universities.

Please call me if you have any questions.

Sincerely,

Robert O. Rolfe

Project Narrative File(s)

*** Mandatory Project Narrative File Filename:**

To add more Project Narrative File attachments, please use the attachment buttons below.



Date: August 17, 2018

To: U.S. Department of Commerce, Economic Development Administration

Re: 16 Challenge Grant Application of Vanderbilt University

This letter of support is submitted by the Nashville Area Chamber of Commerce in support of Vanderbilt University's application for an i6 Challenge Grant to create a proof-of-concept fund. This fund would be used to accelerate the commercialization of technologies and innovations created at Vanderbilt and other regional universities by advancing the commercial value of those technologies and the creation of business startups.


The Nashville Area Chamber of Commerce is the largest business federation in Middle Tennessee and has been continuously working on behalf of business since 1847. The Chamber is a nonprofit organization dedicated to creating economic prosperity by facilitating community leadership. The Nashville Area Chamber represents more than 2,200 member businesses in 15 counties. Through a wide variety of programs and initiatives, the Chamber works to positively impact the economic vitality and enhance the quality of life in the region, while supporting the growth and prosperity of Chamber-member businesses and our partners.

The Chamber is very supportive of this application and strongly urges the EDA to make an award to Vanderbilt to create this very valuable program. It will contribute to regional economic development, economic diversification and will create good-paying jobs. We believe that universities and research they conduct can be a principal driver and catalyst for economic growth and diversification in the community.

We intend to work with Vanderbilt and the other universities to realize the potential of this program.

Thank you in advance for your consideration.

Sincerely,


Ralph Schulz
President and CEO

211 Commerce Street, Suite 100
Nashville, Tennessee 37201
phone – 615.743.3000
fax – 615.256.3074
online – nashvillechamber.com



LaunchTennessee

Date: August 22, 2018

To: U.S. Department of Commerce, Economic Development Administration

Re: 16 Challenge Grant Application of Vanderbilt University

Launch Tennessee, a public-private partnership that advocates for entrepreneurs, startup companies and the commercialization of technology, strongly supports this i6 Challenge Grant application of Vanderbilt University regarding the creation of a proof-of-concept fund. This fund, we believe, will greatly assist in the creation of startup companies who can commercialize medical products technologies developed at Middle Tennessee universities. The startups, in turn, will promote the creation of jobs, diversify the regional economy and further engage the interest of regional university inventors to participate more actively in the commercialization process.

We believe that one of the biggest problems faced by universities wishing to commercialize their inventions and other intellectual property is the fact that they lack the resources to further develop these inventions and intellectual property. This step is extremely important. Universities do not have the budgets or management expertise to engage in the development process. Development can include such things as the creation of prototypes, software and the hiring of consultants – all of which we believe facilitate the commercialization process. With the necessary resources, universities can become one of the principal drivers and catalysts for economic growth and diversification in the community.

Launch Tennessee intends to work with the universities to make the proof-of-concept fund successful by helping them to identify technologies with commercialization potential. There are sufficient resources in the region to assist in the development of medical products startups. Middle Tennessee, we believe, is a perfect place to start a program like the one proposed by Vanderbilt.

We strongly support Vanderbilt's application and urge the EDA to make an award to Vanderbilt.

Please feel free to contact me if you have any questions or would like to discuss this.

Sincerely,

Charlie Brock
President & CEO

211 7th Avenue North, Suite 205 | Nashville, TN 37219 | 615-673-4419
www.launchtn.org

METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY

DAVID BRILEY
MAYOR



OFFICE OF THE MAYOR
METROPOLITAN COURTHOUSE
NASHVILLE, TENNESSEE 37201
PHONE: (615) 862-6000
EMAIL: mayor@nashville.gov

August 17, 2018

To: U.S. Department of Commerce, Economic Development Administration

Re: 16 Challenge Grant Application of Vanderbilt University

This letter of support is submitted by the City of Nashville Mayor's Office in support of Vanderbilt University's application for an i6 Challenge Grant to create a proof-of-concept fund. This fund, we believe, will greatly accelerate the commercialization of technologies and innovations created at regional universities by fostering entrepreneurship and advancing the creation of business startups from these institutions.

The Mayor's Office is very supportive of programs like this. It will create an environment that contributes to regional economic development, economic diversification and the creation well-paid jobs which the Mayor's Office strongly supports. We believe that universities and research being conducted at those institutions can be one of the principal drivers and catalysts for economic growth and diversification in the community.

We are anxious to work with Vanderbilt and the other universities in the region. Consequently, we strongly urge the federal government to approve this application.

Please contact me at (615) 483-4716 or Matt.Wiltshire@Nashville.gov if you have any questions.

Sincerely,

A handwritten signature in dark ink, reading "Matthew A. Wiltshire". The signature is written in a cursive, flowing style.

Matthew A. Wiltshire
Director
Mayor's Office of Economic
and Community Development

August 27, 2018

To: U.S. Department of Commerce, Economic Development Administration

Re: 16 Challenge Grant Application of Vanderbilt University

Vanderbilt University is submitting an i6 Challenge Grant Application for the creation of an academic Proof of Concept Program (Program). The Program will include Vanderbilt University and 10 other regional universities in Middle Tennessee. In the Application, Vanderbilt commits to provide matching funds and certain other financial and human resources support for the administration of the Program.

The resources to support the Program will be paid from the budget of Vanderbilt's Center for Technology Transfer and Commercialization. This includes the Vanderbilt funds that will be used to match the EDA's direct contribution to proof of concept projects as well as the personnel and other resources that will be used to support the Program, all of which report to me. The resources that will be utilized are unencumbered, unrestricted and committed at this time.

During the second and third years of the Program, regional universities will be eligible to participate. In order to participate, they will be required to provide at least a 1:1 match for Program resources expended to support projects at their institution. Vanderbilt will provide the administrative support and assure that the matching funds are available from these regional universities before any amounts are distributed to them from the Program funds. Vanderbilt will, as the application specifies, set up the administrative apparatus that will evaluate funding applications from the regional universities including the External Review Committee to be formed in collaboration with the Global Action Platform.

Thank you,



Alan Bentley
Assistant Vice Chancellor
Technology Transfer and Intellectual Property Protection

Budget Narrative File(s)

* **Mandatory Budget Narrative Filename:**

[Add Mandatory Budget Narrative](#)

[Delete Mandatory Budget Narrative](#)

[View Mandatory Budget Narrative](#)

To add more Budget Narrative attachments, please use the attachment buttons below.

[Add Optional Budget Narrative](#)

[Delete Optional Budget Narrative](#)

[View Optional Budget Narrative](#)

ATTACHMENTS FORM

Instructions: On this form, you will attach the various files that make up your grant application. Please consult with the appropriate Agency Guidelines for more information about each needed file. Please remember that any files you attach must be in the document format and named as specified in the Guidelines.

Important: Please attach your files in the proper sequence. See the appropriate Agency Guidelines for details.

1) Please attach Attachment 1	1234-i6 2018 Challenge State	Add Attachment	Delete Attachment	View Attachment
2) Please attach Attachment 2	1235-i6 2018 Challenge Letter	Add Attachment	Delete Attachment	View Attachment
3) Please attach Attachment 3	1236-VU_FY2018_Rate_Agreement	Add Attachment	Delete Attachment	View Attachment
4) Please attach Attachment 4		Add Attachment	Delete Attachment	View Attachment
5) Please attach Attachment 5		Add Attachment	Delete Attachment	View Attachment
6) Please attach Attachment 6		Add Attachment	Delete Attachment	View Attachment
7) Please attach Attachment 7		Add Attachment	Delete Attachment	View Attachment
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PART B – BUDGET NARRATIVE AND STAFFING PLAN

Budget Narrative

A detailed Program budget is provided below for the three-year term of the grant, providing for a match commitment exceeding 2:1. Vanderbilt has budgeted \$330,000 (\$110,000 per year) for the POC Program. Further, Vanderbilt will provide at least \$285,228 of in-kind matching funds in the form of salary support for ten Vanderbilt employees (\$95,076 per year, to support of administering the grant and managing the proof of concept projects), plus another \$180,000 (\$60,000 per year) to support the purchase of resources (databases, equipment, overhead), and legal expenses associated with protecting medical product innovations and their improvements and with company formation. The bulk of the Vanderbilt personnel in-kind contribution (\$225,180) will be dedicated to Vanderbilt-related activities, though a portion (\$60,048) is committed to assisting in the operations of the Regional POC program. Vanderbilt's total contribution for the three-year term will be a grand total of \$795,228.

Each regional university partner will provide 1:1 matching funding for any approved Regional POC Program grants to its university. However because it is not known which university partners will have funded projects, the partnering universities' match is NOT included in the total matching share. (If regional universities do not make POC investments, there will be no corresponding EDA investment.)

It is anticipated that Vanderbilt and its regional partners will fund between 12 and 15 projects in the three-year term of the grant, plus another 45 to 50 projects over the subsequent seven years. Funding for individual projects will likely vary substantially, from \$10,000 to \$100,000. Most projects will receive between \$10,000 and \$50,000 in POC support (at least half of which is funding from the university matching share).

Launch TN has committed to support the POC Program by providing mentorship and capital raising assistance for medical product companies launched from the Program. They will also assist in the evaluation of medical products originating at Vanderbilt and at the 10 regional universities. Further, Launch TN will work with these medical product companies to pursue SBIR and STTR resources via its Microgrant and SBIR match Programs.

LST and the EC have committed to further support the POC Program by providing education and training to medical product entrepreneurs, to take leadership roles on the External Review Panel (ERP), and to act as conduits to connect our project managers and the technologies under proof of concept development to regional and national investors and entrepreneurs. The GAP has committed to extend its "academic partnerships" efforts to oversee the Regional POC Program and the External Review Panel.

If the Vanderbilt i6 Challenge Grant proposal is approved, the federal share of \$395,000 would be used principally for proof of concept funding, with only approximately \$25,000 reserved for administrative and operational support for stage 2 of the Program relating to the Regional POC Program for the 10 regional university partners.

Staffing Plan

The POC Program will be staffed principally by existing Vanderbilt entrepreneurship and biotech professional staff from CTTC. The table below sets forth the contributions in professional staff to the POC Program. None of these positions will be charged to this grant; all effort is included in the matching share. The majority of the Vanderbilt team has prior experience in proof of concepts funds in academic settings and associated project management and coordination responsibilities. All Vanderbilt personnel have advanced degrees in relevant areas

of science or law. The GAP Program administrator for the Regional POC Program will have a portion of salary charged against the grant. The table below provides the salient information for the staff members obligating time to the Project, followed by brief bios of the key administrators.

Vanderbilt Staff (by position)	Avg. Annual Salary	Percent	Total Salary for Project (3 yrs)
Principal Investigator	\$175,000	10%	\$52,500
Peter Rousos, J.D.			
Program Manager	\$175,000	5%	\$26,250
Chris Harris, PhD			
Regulatory Director	\$350,000	2.5%	\$26,250
Ken Holroyd, M.D.			
Technical Directors (3)	\$140,000	5%	\$63,000
Biotechnology (Mike Villalobos, PhD)			
Medical Device (Ashok Choudhury, PhD)			
New Ventures (Kelley Dantoulis)			
Project Managers (4)	\$100,000	5%	\$60,000
Philip Swaney, PhD			
Taylor Jordan, J.D.			
Karen Rufus, PhD			
Masood Machingal, PhD			
TOTAL FOR 3 YEAR GRANT: \$228,000 (or \$76k/year)			

GAP – POC Administrator	Personnel	Annual Salary	Percent Effort	Total Project Salary (2 yrs)
Program Admininstrator	TBD	\$75,000	16.7%	\$25,000

Peter Rousos, J.D. - Director, Economic and New Venture Development, CTTC, Vanderbilt University

Mr. Rousos joined the Vanderbilt University Technology Company, a quasi-venture and business incubator subsidiary of Vanderbilt University in 2001 and joined CTTC in 2003. In his current role, he provides broad support to start-up companies that spin out of Vanderbilt. In his role, he also works directly with many of the community professional associations and government agencies who support this application. Mr. Rousos serves on several for-profit and nonprofit boards of directors. Prior to joining Vanderbilt, Mr. Rousos worked in several senior executive and legal roles in industry, has been a founder of several startup companies and practiced law in New York. Mr. Rousos received his JD degree from the University of Pittsburgh and his Bachelor of Science degree from the State University of New York.

Chris Harris, Ph.D. – Director of Licensing, CTTC, Vanderbilt University

Mr. Harris joined Vanderbilt University's Center for Technology Transfer and Commercialization as Director of Licensing in October of 2011 and is responsible for leading all licensing activities. Prior to joining CTTC, Chris was the Associate Director for Licensing at the National Renewable Energy Laboratory (NREL) in Golden, Colorado where he managed a team of licensing executives. At NREL, Mr. Harris managed the lab's Privately-Funded Technology Transfer (PFTT) Program of several million dollars for technology maturation and proof-of-concept. He successfully guided the PFTT Program to a robust set of project investments, leading to several hundred thousand dollars of industry matching funds and the earliest PFTT commercialization success of any of the national laboratories, less than a year after the Program's initiation. He was also previously the Senior Licensing Manager at the University of Virginia Patent Foundation. Mr. Harris received his doctorate in nuclear physics from the University of Virginia in 2001. Mr. Harris is a registered U.S. Patent Agent and a Certified Licensing Professional. Prior to his graduate school career, Mr. Harris worked as a software design engineer for Martin Marietta in King of Prussia, Pa. There he helped design command and control type software for a classified contract.

Kenneth J. Holroyd, M.D. – Medical Director, CTTC, Assistant Vice Chancellor for Research, Associate Professor of Anesthesiology and Medicine, Vanderbilt University

Dr. Holroyd is Medical Director for the Center for Technology Transfer and Commercialization, and Assistant Vice Chancellor for Research, and Associate Professor of Anesthesiology and Medicine. Joining Vanderbilt University in 2005, Cumberland Emerging Technologies, Informatics Corporation of America (ICA), Acuitec, digiChart, and Friends in Global Health. He is past Co-Chair of the Public-Private Partnership Committee of the National Institutes of Health's Clinical and Translational Science Award (CTSA) Program. Dr. Holroyd was in the biopharmaceutical industry for seven years, at Magainin Pharmaceuticals and Genaera Corporation, a drug development company, where he was Executive Vice President and Chief Operating Officer. Previously he was a faculty member at the University of Pennsylvania and at Johns Hopkins University. Johns Hopkins University awarded him the M.D. degree in 1984.

Kelley Dantoulis – Manager, New Ventures, CTTC, Vanderbilt University

Ms. Dantoulis joined CTTC in March 2016 as the Manager, New Ventures. In that capacity, she supports entrepreneurship and new venture activity with respect to Vanderbilt technologies. Prior to joining CTTC, Ms. Dantoulis worked with Silicon Valley Bank's Venture Lending Group in Atlanta providing growth capital to early stage companies funded by top-tier VC's. She has been active in the innovation eco-system mentoring startup companies on investor readiness, business plans and operational efficiency. Ms. Dantoulis is a senior banker and a certified valuation analyst.

Mike Villalobos, Ph.D. – Manager, Biotech Licensing, CTTC, Vanderbilt University

Mr. Villalobos joined the Center for Technology Transfer and Commercialization in September 2011 as the Manager for Biotech Licensing. In this role, he manages the team of licensing professionals that is responsible for commercializing Vanderbilt's life science technologies. Mr. Villalobos has extensive experience commercializing early-stage technology having executed more than 100 licensing transactions with micro- to mega-cap corporations as well as launching 3 startup companies. Prior to joining Vanderbilt, Mr. Villalobos managed the commercialization of life science and medical device technologies for The Cleveland Clinic and Purdue University. In the for-profit sector, he was a Senior Process Scientist at Abbott Laboratories where he oversaw the manufacturing of diagnostic assays for human blood borne pathogens. Mr. Villalobos brings to the position a strong life sciences background, which includes a bachelor's degree in Microbiology from the University of Illinois - Urbana and a Ph.D. in Molecular Biology from Loyola University Chicago. He is a member of the Association of University Technology Managers (AUTM) and the Licensing Executives Society (LES).

Ashok Choudhury, Ph.D. – Manager, Physical Science Licensing, CTTC, Vanderbilt University

Mr. Choudhury joined CTTC in January 2007 and is responsible for engineering and physical sciences technologies. Prior to joining CTTC, Mr. Choudhury managed all aspects of intellectual property and licensing at the Oak Ridge National Laboratory for over fifteen years. He was the recipient of numerous technology transfer awards including a *R&D 100 Award*. Mr. Choudhury is a metallurgist by training and stays involved in the technical community through teaching and advising activities. He received a Bachelor of Technology degree in Metallurgy from the Indian Institute of Technology, Kharagpur, India, and subsequently received MS and Ph.D. degrees in Metallurgical Engineering from the University of Tennessee. Mr. Choudhury is the co-author of two books on failure analysis. He is also a member of AUTM, LES, ASM International, Sigma Xi and Tau Beta Pi.

Middle Tennessee Academic Proof of Concept Program I6 Challenge Grant Application

PART A: PROJECT DESIGN AND SUBSTANCE

PROJECT NARRATIVE

Executive Summary

A growing number of academic institutions invest in the internal advancement of basic research discoveries as an essential element of their technology commercialization strategy. Recently, such investments have proven to accelerate technology commercialization and startup company formation at Vanderbilt. Technologies receiving such support are more likely to be licensed to commercial partners, more likely to form the basis of new startup companies, generally command higher licensing fees, hire more people, reach the marketplace in a shorter time and facilitate local economic development – more so than those that do not receive such internal investment.

Vanderbilt University seeks to launch a multi-disciplinary proof of concept (POC) Program dedicated to advancing medical product innovations (including medical devices, diagnostics, biologics, therapeutics, and digital health technologies) that have been determined to possess the potential to be the basis for a startup company.

Vanderbilt requests a total of \$395,000 over a three-year period to support an institutional and a regional POC fund. Funds received will be allocated as follows:

- \$270,000 to launch a POC fund to advance medical product innovations at Vanderbilt (POC Program), and
- \$125,000 to launch a similar regional POC fund (Regional POC Program) in years 2 and 3 of the grant, available to 10 other universities in the Middle Tennessee region (excluding Vanderbilt) who choose to participate.

Vanderbilt will contribute \$795,228 in matching funds over the three-year term of the grant (as detailed in the Budget Narrative below), providing more than a 2:1 match.

Location and Region

The POC Program will be focused on Middle Tennessee, with the primary service area being (by FIPS code): Davidson (47037), Putnam (47141), Rutherford (47149) and Williamson (47187) counties (where Vanderbilt and the regional universities are located). Principal beneficiaries will include the regional university partners, the regional medical products industry, regional municipalities, regional business and professional organizations, investors and entrepreneurs. There will be modest benefits to stakeholders statewide.

Middle Tennessee has a multiplicity of resources to assist in the creation of a sustainable entrepreneurial ecosystem, including a long history of entrepreneurship focused on health care. Middle Tennessee is home to more health care companies than any other region in the southeast. Those companies contribute an overall economic benefit to the region of \$38.8 billion and more than 250,000 jobs. Globally, this sector of the economy

generates \$84 billion in revenue and more than 500,000 jobs. More than \$1.6 billion in venture capital was invested in Nashville healthcare companies from 2005 to 2015.

The region also has significant human and financial resources well positioned to support the growth of new companies focused on medical product innovations. Those in the regional healthcare industry understand the rapid changes that are occurring. Vanderbilt and CTTC have a number of relationships with those who lead healthcare organizations (including the Vanderbilt University Medical Center). Those leaders have expressed a need for and interest in new companies with new ideas to meet the challenges of the changing healthcare environment. As a result, innovative early stage companies are in high demand and are being acquired by these healthcare organizations. This, we believe, increases the probability of success for the new companies that spin out of the POC Program.

Finally, the region is home to Vanderbilt University, a Level 1 medical research institution with a history of commercialization and support for startup companies that are commercializing technologies developed at the institution. The region also includes 10 other regional universities for whom the Regional POC Program will be created. Those 10 universities include: Austin Peay State University, Belmont University, Cumberland University, Fisk University, Lipscomb University, Meharry Medical College, Middle Tennessee State University, Tennessee State University, Tennessee Tech University and Trevecca Nazarene University.

Description of the Proposed Project

Purpose of POC Program

The purpose of this POC Program is to set in motion a sustainable program to improve Middle Tennessee's performance in producing and growing new technology companies in the medical product field; creating high quality and well-paying jobs in the region; and bolstering the region's ability to attract capital investment, entrepreneurs, and management talent that will contribute to regional economic prosperity. The POC Program will not be a research funding Program.

The principal focus of the proposed POC Program will be on medical product innovation. **Medical product innovations include medical devices, diagnostics, biologics, therapeutics, and digital health technologies.** Medical product innovations are invented and developed in numerous departments, centers, institutes and schools across the institution, including those focused on biomedical informatics, personalized medicine, drug discovery, mass spectrometry and imaging sciences, human prosthetics, and vaccine development – all areas in which Vanderbilt is a nationally recognized leading research institution. Vanderbilt is also home to the Vanderbilt Institute for Surgery and Engineering, the Center for Rehabilitation Engineering and Assistive Technology, the Center for Structural Biology, Mass Spectrometry Research Center, Vanderbilt Center for Neuroscience Drug Discovery, Vanderbilt Institute for Chemical Biology, and the Vanderbilt Institute of Imaging Sciences – all with international reputations and expertise in research and innovation.

Tennessee, and in particular Middle Tennessee, has historically underperformed in terms of capturing and leveraging the wealth of innovations created state-wide. Although Tennessee is in the top 10 nationally in research and development expenditures, it is near the bottom in terms of commercial outcomes from academic research.

Economic development efforts by the State, through its public-private partnership Launch Tennessee (www.LaunchTN.org), have begun to improve these results for the broader economy. However, in the science and technology sector, Tennessee still only produces a dozen or so university-licensed technology-based startup companies per annum. This number is a strikingly small percentage of the overall licenses by Tennessee universities and research institutions, especially considering the significant amount of federally funded research conducted in the State.

This shortcoming results in missed opportunities for real-world impact and local economic development. Despite an abundance of intellectual resources and a supportive business environment, there remains a fundamental discordance between the high level of innovation and the relatively few translations of such innovations into new and growing companies in the State. Vanderbilt and its regional partners recognize this

challenge and are taking bold steps to address that shortcoming. The i6 grant will be a key source of support to implement this plan to launch well-positioned, locally-placed, university-related startup companies.

This proposed POC Program is centered on **medical product innovations**, with an added level of analysis to determine the **startup feasibility** of innovations under consideration, and forming an external committee to review and validate our internal assessments before proceeding with individual projects. Once established at Vanderbilt, we intend to work with the other universities in the region and other local partners to launch a Regional POC Program in years two and three of the grant to more broadly boost the capacity for economic development opportunities from our region's universities.

Assessing whether an early stage university asset can be commercialized through a startup company has to be a thoughtful and rigorous process – not a foregone conclusion. Startups are not the appropriate vehicle to commercialize all medical product technologies. Our goal is to carefully evaluate medical product technologies and to launch only high quality startup companies that are investable and positioned to be successful. Over the last few years, it has been Vanderbilt's practice to launch only what it believes to be high quality startups.

We believe it will take at least one year for projects to mature to the extent that startups would be ready for launch. During the three-year term of the Program, however, we expect that the number of medical product startups launched will double, and we anticipate this rate of new business creation will continue to build as early projects succeed and return resources that are reinvested in the Program. Over the next decade, we expect to launch nearly 45 medical product-focused new ventures locally, leading to the creation of more than 1,000 high quality jobs for the region.¹

The i6 Challenge Grant will enable the launch of this Program by providing matching resources to invest in a broad range of medical product and healthcare innovations from throughout Vanderbilt, including its affiliated medical center, where Vanderbilt is an internationally recognized research and innovation leader². As stated above, success of the POC Program will be supported by the intellectual capital, financial capital, management resources and infrastructure resources in the Middle Tennessee region. Due to its internal development capabilities, its past and ongoing medical product development investments and deep pipeline of products and projects, Vanderbilt is well-positioned to advance products in this market. Further, Vanderbilt has received strong commitments from regional organizations to assist in the success of such a Program.

As detailed here, we strongly believe the POC Program will be sustainable well beyond the initial funding from the i6 Challenge Grant. **We anticipate that the 10-year benefits of the Program will lead to the creation of 60 funded projects and 45 medical product companies locally, creating more than a thousand direct and indirect jobs, and generating an additional \$95,629,516 in the region through grants, investments and tax generation).**

Vanderbilt has experience with proof of concept funding. On July 1, 2012, Vanderbilt University launched a 12-month POC Pilot Program (Pilot Program) to test the value of rapid advancement and prototyping for a broad spectrum of early stage, promising Vanderbilt innovations carefully vetted by the Vanderbilt Center for Technology Transfer and Commercialization (CTTC). The Pilot Program was one of a series of institutional commitments to capitalize on the commercial potential of Vanderbilt's robust innovation base. Each of CTTC's directors involved in the Pilot Program have a strong record of successful management of prototyping centers at other academic institutions, research hospitals and national laboratories.

In evaluating technologies for the Pilot Program, CTTC conducted an in-depth analysis of a variety of commercialization factors, such as markets and market needs, competing products, potential strategic partners, scope of intellectual property protection available, clinical and/or societal impact, and industry feedback. Projects

¹ The Nashville Area of Chamber estimates, that for each 100 jobs created by companies in the medical products and similar industries, the result would be \$46,548,701 in total output (impact) and \$1,266,057 in total state and local taxes generated.

² See, for example, a survey by Reuters ranking Vanderbilt as the tenth most innovative university in the world. (<https://www.thomsonreuters.com/en/press-releases/2017/september/stanford-mit-harvard-top-third-annual-reuters-top-100-ranking-of-the-most-innovative-universities.html>).

with the potential to achieve a significant commercial development milestone in a reasonable period of time at a reasonable cost were strong candidates for POC funding. Though this Pilot Program had a limited term of 12 months and was not focused on startup opportunities specifically, the outcomes clearly demonstrated that proof-of-concept funding does improve commercial outcomes and regional economic development.

Of the 15 applications submitted to the Pilot Program, 12 were funded for a total of \$163,681. Over time, these funded projects resulted in follow-on funding of \$410,000 from external sources, and produced 14 licensing transactions returning nearly \$350,000 in licensing revenue to date.

Key Personnel

Portions of time from among 10 Vanderbilt CTTC licensing and entrepreneurship professionals will be dedicated to the POC Program as a match component. These individuals are specified in the Staffing Plan below. CTTC key personnel have significant experience and success in evaluating and commercializing early stage medical product technology, managing proof of concept programs, protecting underlying intellectual property, starting and operating companies, partnering with venture investors and strategic partners, and working with early stage companies to position them for long term success. Among CTTC's professional staff are experts with a variety of advanced degrees including PhD scientists, MBAs, IP and business attorneys, and registered patent agents. Many have direct experience with startup companies and have a solid and close relationship with the Nashville health care and investor community.

Additionally, part of an administrator's salary will be allocated to the federal share of the grant to support the Regional POC Program, managed by the Global Action Platform (GAP, discussed below). Members of the regional business and capital investment community will donate their time to these Programs through their participation on the (i) Entrepreneurship Advisory Council (EAC) (for the Vanderbilt POC) and (ii) the External Review Panel (ERP) to be composed of members of the Nashville Entrepreneur Center, Launch TN, Life Science Tennessee, and the EAC (for the Regional POC). The ERP will be operated through the GAP.

Essential Partners:

In addition to Vanderbilt University, 10 regional university partners will be eligible to participate in phase 2 of the POC Program – the Regional POC Program – in years two and three. Those universities include Austin Peay State University, Belmont University, Cumberland University, Fisk University, Lipscomb University, Meharry Medical College, Middle Tennessee State University, Tennessee State University, Tennessee Tech University and Trevecca Nazarene University. These universities have formed a research leadership group, coordinated by the Nashville-based Global Action Platform (GAP). GAP will assist in evaluating technologies submitted to the Regional POC Program and will provide administrative support. Other key partners that will be members of the Regional POC's External Review Committee include the State of Tennessee public-private partnership Launch Tennessee, the Tennessee chapter of BIO (Life Science Tennessee), the Nashville Entrepreneur Center and Cumberland Emerging Technologies.

A brief description of these organizations is provided below:

- **Vanderbilt University** will provide full operational and administrative support for the Proof of Concept Program. This will include market analysis, technology evaluation, intellectual property guidance and protection, and transactional services for each technology selected for POC funding. Vanderbilt will be responsible for project management of all POC development Programs and for coordination of the Entrepreneurship Advisory Council activities. It will coordinate the associated educational sessions. Vanderbilt will serve as the primary provider of resources to the Program, committing \$360,000 in direct proof of concept funding, in addition to patenting, corporate formation, capital acquisition, operational support for startups that are formed, regulatory guidance, financial modelling, POC Program management and other in-kind contributions. Vanderbilt is committing a total funding match in excess of 2:1 over the life of the grant.

- **Launch Tennessee** (Launch TN, at <https://launchtn.org/>) is a public-private partnership supporting entrepreneurs with the mission to make Tennessee the most startup friendly state in the country. LT provides

many Programs that support entrepreneurs and new businesses. An illustrative list includes: (i) mentor networks that support entrepreneurs in the life science industry; (ii) a micro-grant Program offering up to \$6,000 for grant writing assistance to Tennessee-based early stage companies apply for SBIR and STTR grants; and (iii) an SBIR/STTR Matching Fund administered by Launch TN to advance commercialization efforts by providing \$.50 to companies receiving awards for every dollar awarded by the federal government. Vanderbilt has a close relationship with Launch TN, and Alan Bentley serves on its Board of Directors.

- **Life Science Tennessee** (LST, at <https://www.lifesciencetn.org/>) is a statewide, non-profit, member organization of more than 100 companies whose mission is to advance and grow the life science and medical technology industry in Tennessee through advocacy, partnerships and alignment with economic and workforce development. Members include companies, universities, research institutions, government and economic development groups and other industry associations involved in the discovery and application of life science products and related services that improve the health and well-being of people throughout the world. LST has several relevant programs, including a statewide mentor network of seasoned life science and medical technology executives to provide support to entrepreneurs leading startups and early stage companies. Vanderbilt has a close relationship with LST, and Alan Bentley serves on its Board of Directors.

- **The Nashville Entrepreneur Center** (EC, at <https://www.ec.co/>) provides a variety of services that support the startup company ecosystem to help those businesses launch and grow successfully. The EC is a Google Tech Hub. The EC also operates Project Healthcare, which leverages the EC's expertise and network to accelerate the success of healthcare entrepreneurs. Vanderbilt has a close relationship with the EC, and Alan Bentley recently completed six-years of service on its Board of Directors.

- **Cumberland Emerging Technologies** (CET, at <http://www.cet-fund.com/>) is a life sciences business incubator facility located near downtown Nashville. CET was founded almost 20 years ago by Cumberland Pharmaceuticals, the State of Tennessee and Vanderbilt University. In addition, CET plays a role in evaluating early-stage biomedical technologies from universities and entrepreneurs and also provides consulting assistance for those applying for federal SBIR or STTR grants. Alan Bentley, Ken Holroyd and Peter Rousos serve on CET's board of directors and/or advisory board.

- **The Global Action Platform** (GAP, at <http://globalactionplatform.org/>) is a nonprofit located in Nashville whose mission is to advance scalable, sustainable abundance in food, health and prosperity. In connection with its mission, it currently works with all of the local universities who will be members of the Regional POC. GAP hosts regular meetings with all regional universities to forge new programs that leverage institutional capabilities and resources for improved economic development outcomes. GAP will play an active role organizing the multi-institutional regional POC fund and managing the ERP.

Outreach and Engagement Plan

Outreach relationships for the POC Program are already in place and will be further leveraged by the POC Program. As stated above, GAP has formed a group composed of academic research leaders from the 10 regional university partners (including Vanderbilt), and the group meets regularly. Further, the academic institutions' activities and interests are intertwined with efforts by the regional and state trade organizations and partnerships (notably Launch TN, LST, CET and the EC). Members of CTTC's Entrepreneurship Advisory Council are members of and heavily networked in the local business and venture communities. Vanderbilt will work with the GAP and the 10 regional universities to assist them in administering the Regional POC Program to evaluate technologies and to select those that are suitable for funding.

Vanderbilt already conducts several programs that will support the POC Program. These include:

- The **Pre-Launch and Post-Launch Programs**, both focused on practical entrepreneurship education and hosted by Vanderbilt's innovation center, the Wond'ry. Both programs were developed in collaboration with the Nashville Entrepreneur Center and CTTC. The Programs are designed to help aspiring Vanderbilt entrepreneurs understand the legal, business and behavioral requirements necessary to start a company.

These Programs will equip faculty inventors to engage more effectively with the POC Program and the startups with startup enterprises that will develop those medical product technologies.

- The **ASPIRE Program** (*Augmenting Scholar Preparation and Integration with Research-Related Endeavors*) This program was established in 2013 to empower and prepare biomedical sciences PhD students and postdoctoral scholars to make well-informed career decisions. ASPIRE provides resources and support to broaden their experiences and to help them transition efficiently to research and research-related careers in both academic and nonacademic venues. ASPIRE is a three-phase initiative administered through the Office of Career Development within the Office of Biomedical Research Education and Training.

- The **TechVenture Challenge** is a six-week business plan competition that creates interdisciplinary student teams who seek to commercialize real Vanderbilt technologies. It facilitates networking between researchers and business professionals and highlights emerging intellectual property from Vanderbilt, including technologies that are likely to be candidates for POC Program funding.

- The **Medical Products Support Services** (MPSS) group is one of the only university Programs in the country providing real-time regulatory guidance to researchers developing medical products. This capability is part of the Center for Technology Transfer. The MPSS team will review those applications that might require regulatory approvals and will provide guidance as to the level regulatory review required for each medical product under consideration for POC Program support, and will be the point of contact and interface with the Food and Drug Administration.

- The **Innovation and Investment Forum** (IIF) is an annual program hosted by CTTC for investors and entrepreneurs that highlights research areas and innovations where Vanderbilt is creating technologies that will have a dramatic impact on specific markets. The Forum has three parts: (i) a panel discussion with nationally known investors in the specific field, (ii) an interactive small group breakout exercise led by the expert panelists and (iii) an opportunity for those investors and entrepreneurs in attendance to meet with and talk to the Vanderbilt innovators.

Following the conclusion of the first year of the POC Program, Vanderbilt will host a technology and start-up showcase event to highlight the projects and start-ups launched from the POC Program as part of the IIF. The IIF event will serve as a mechanism for advertising the POC Program to future participants and regional partners, attracting new investment into the start-ups and helping entrepreneurs to network with people and companies in the medical products field. The event will also provide an opportunity for the ten regional institutions to see, first-hand, the value of the POC Program and to encourage their participation in the second phase.

Scope of Work

Vanderbilt University's POC Program will be dedicated to advancing medical product innovations that have been determined to be commercially feasible, capable of intellectual property protection, and possess the potential to be the basis for a startup company. The purpose of this Program is to improve Middle Tennessee's performance in producing and growing new technology companies in the medical product field, creating high quality and well-paying jobs in the region and bolstering the region's ability to attract capital investment, entrepreneurs, and management talent that will contribute to regional economic prosperity. During the three-year term of the Program, however, we expect that the number of medical product startups launched in the region to double. We anticipate this rate of new business creation will continue to build as early projects succeed and return resources that are reinvested in the Program. Over the next decade, nearly fifty medical product-focused new ventures will launch regionally, leading to the creation of more than 1,000 high quality jobs for the region.

The i6 Challenge Grant will enable the launch of this Program by providing matching resources to invest more aggressively in a broad range of medical product and healthcare innovations from throughout the institution, including its affiliated medical center, where Vanderbilt is an internationally recognized leader. The POC Program is expected to include projects from numerous departments, centers, institutes and schools across the institution, including those focused on biomedical informatics, personalized medicine, drug discovery, mass

spectrometry and imaging sciences, human prosthetics, and vaccine development – all areas in which Vanderbilt is a nationally recognized leading research institution. The Program will also draw innovations from prestigious centers such as the Vanderbilt Institute for Surgery and Engineering, the Center for Rehabilitation Engineering and Assistive Technology, the Center for Structural Biology, the Mass Spectrometry Research Center, the Vanderbilt Center for Neuroscience Drug Discovery, the Vanderbilt Institute for Chemical Biology, and the Vanderbilt Institute of Imaging Sciences – all with international reputations and expertise in research and innovation.

This Program will be augmented and supported by the intellectual capital, financial capital, management, and infrastructure resources located in Middle Tennessee. Due to its internal development capabilities, its past and ongoing medical product development investments and deep pipeline of products and projects, Vanderbilt is well-positioned to advance products in this market. Further, Vanderbilt has received strong commitments from regional organizations to assist in the success of such a POC Program. The POC Program expects to produce deliverables as follows:

Key Deliverables	Time
Commence review/evaluation of initial medical product innovations	January 2019
Fund first project for development	April 2019
Hold medical product innovation and investment conference	July 2019
Launch first medical product spinoff company	October 2019
Finalize ERP advisors and program for Regional POC Program	November 2019
Launch regional universities medical product reviews	January 2020
Close first funding round for medical product spinoff	April 2020
Complete support agreement with large medical product company partner	April 2020
Commit development resources to a dozen medical product projects	July 2021
Double the number of annual medical product startups in region	September 2021
Raise \$10M in 3 rd party capital for medical product startups	October 2021
Launch first medical product on market	December 2021

Project Timeline

The timeline in the Project Timeline figure below lays out Vanderbilt's plans for the POC Program during the initial grant period. As specified in the figure, Vanderbilt will develop and implement the processes and protocols for the POC Program in late 2018 followed by the launch the POC Program on campus in January, 2019. The Regional POC Program will be launched in January of 2020 and will be largely based on the Vanderbilt POC Program in structure and execution.



Anticipated Impact

Vanderbilt expects to review 10-15 projects per year, funding approximately one-third in amounts ranging generally from \$10,000 - \$50,000. At least half of the cash resources committed to funding for these medical product innovations will be provided from Vanderbilt's matching contribution to the POC Program. Further, Vanderbilt as part of its additional in-kind match will commit supplementary resources (database searches, patent searches, market reports, etc.)

For the second stage of this Program – developing the Regional POC Program for the 10 other Middle Tennessee universities – Vanderbilt's assessment tools and protocols will be made available to all, but each university will be responsible for completing its own initial assessment of its medical product innovations.

Applications from universities seeking POC support will be submitted to the Global Action Platform (GAP, <http://globalactionplatform.org/>). GAP will, in conjunction with Vanderbilt, create the ERP to be comprised of members of the Nashville Entrepreneur Center, Launch TN, Life Science Tennessee and Vanderbilt's EAC to vet applications for start-up potential based on criteria similar to that employed by Vanderbilt. Projects approved by the ERP will be advanced for Regional POC funding. At least half of the direct funding committed to advancing each medical product innovation will be provided from the inventing regional university. All time and material resources (database searches, patent searches, market reports, etc.) committed by all personnel involved in evaluating innovations for POC funding are committed as an in-kind match.

Selected projects should take less than one year to complete. As a project progresses and positive results are achieved, CTTC will work with its partners to build and vet management teams; identify sources of capital; develop business plans, financial models and marketing plans; and socialize the business opportunity with investors regionally and beyond.

The metrics below provide an overview of the anticipated impacts that Vanderbilt expects over the three, five, and ten year periods of the POC Program. As specified in the table below, Vanderbilt itself plans to create six new medical product startups in the first three years of the Program, while the five-year projection is for the formation of at least 14 additional new ventures at Vanderbilt and its regional university partners. A decade of POC funding will result in numerous medical products reaching the marketplace, providing ample returns to Vanderbilt and its university partners to ensure sustainability of the Program. The metrics set forth below are common metrics for a university to track as part of its technology commercialization efforts, so tracking mechanisms are already in place through a combination of our Inteum database (used by many universities to track commercialization activities) and a customized Salesforce platform. A project application submission portal may also be developed through InfoReady to standardize the submission process, facilitate project scoring, and consolidate records of all submitted applications.

Metric	3-year cumulative projection	5-year cumulative projection	10-year cumulative projection
Projects submitted	30	60	135
Projects funded	12	25	60
New companies launched	6	14	45
Products on market	0	5	15
Jobs created (direct/indirect)*	40 / 200	90 / 450	225 / 1125

* Job figures estimated using methodology utilized by [the Nashville Area Chamber of Commerce and based on, among others, the IMPLAN impact model](#).

The POC Program will have a positive impact over the next 18 months. It will: (i) provide an organizational structure to evaluate new medical product technologies for startup potential, (ii) advance that technology to a value infection point that can support and justify third party investment and (ii) provide a collaborative infrastructure in which the local business community and regional stakeholders can assist and participate in company formation and growth.

The startups and business opportunities created by this Program will inherently lead to the formation and advancement of a social and professional infrastructure. This will include successful entrepreneurs, educated investors and professional support talent (e.g. consultants, accountants and attorneys). It will actively engage State and local governments and regional trade and professional associations. It will motivate entrepreneurially oriented faculty and staff who recognize and are anxious to participate in the benefits of commercialization activity and their respective university administrations.

Sustainability Plan

The POC Program is well positioned to be sustainable in the long term, both from a funding standpoint and from a technology-sourcing standpoint. First and foremost, Vanderbilt's commitment to the Program is long term and the institution has already piloted such a program. The positive impact the Program will have on economic growth and the creation of high-quality jobs is well understood. Further, the POC Program is perfectly aligned with Vanderbilt's long standing commitment to commercialize the fruits of its research enterprise for the public benefit. Additionally, many of the regional universities have been conducting more research over the past few years (as evidenced by increased research expenditures) and have been increasingly interested and engaged in the commercialization process which interest we believe the Regional POC Program will accelerate.

As discussed above, the POC Program is structured to capture payback from its technology advancement investment through revenue returns from successful start-up enterprises derived from POC-supported projects. Each new venture launched under this Program will operate at arms-length from the contributing university, and will have its own governing board, management team and funding sources. The contributing university will enter into an intellectual property license with each new venture and maintain a modest equity position in each, which is typical of such transactions. As each new venture scales and launches new products, a portion of royalties, equity liquidations, and other licensing fees paid to the university by the new venture will be committed to the POC Program to ensure its long-term sustainability. These start-ups will be based on projects thoroughly vetted by the local ecosystem, which will help to raise their visibility among potential acquirers and strategic partners. The regional healthcare industry is prepared and ready to absorb these start-ups and their innovations as they prove their business models and obtain market validation. We believe that equity liquidations are likely to occur quickly, providing healthy returns to Vanderbilt and other stakeholder institutions. Revenue back to Vanderbilt and its partnering regional universities is expected to ramp up quickly and generate more than \$1 million annually by year five. Cumulative commercialization revenues generated under this Program are estimated to approach \$10 million over a 10-year period. Vanderbilt is highly confident that the revenues generated from POC-supported projects will be more than sufficient after three years to sustain the Program, together with the institution funding commitments being made long term.

Faster-than-projected growth of one or more of the new ventures would provide even greater job creation and revenue generation than estimated above. While the POC Program will return tangible economic benefit to the region, it also possesses the potential for a much more dramatic impact on economic development than can be reasonably anticipate today.

Vanderbilt and the regional universities will have to effectively communicate the benefit of the POC Program to their respective university leadership. Institutional leadership well understands the need for the University to play a greater role in commercialization and economic development. Nevertheless, there will be a need for periodic reminders of the benefits of the POC Program including how it benefits both the research enterprise as well as the community as a whole A.

CTTC communicates to its leadership about the benefits of commercialization and startups on a regular basis. CTTC will work with the regional universities to help them develop similar communication strategies about the benefits of the POC Program. While we understand that there is already support for a program like this at many of the universities, periodic and effective communication is critical.

In summary, the POC Program will stimulate innovation, capture the interest of innovators at universities, benefit the public (with products that improve health), diversify the economy, create jobs and benefit local governments. The relatively small sums that will be used to advance the commercial aspects of research will have an impact disproportionate (positively) to the size of the investments made through the POC Program.

COLLEGES AND UNIVERSITIES RATE AGREEMENT

EIN: 1620476822A2

DATE:05/19/2017

ORGANIZATION:

FILING REF.: The preceding
agreement was dated
02/25/2016

Vanderbilt University
VU Station B #351591
2301 Vanderbilt Place
Nashville, TN 37235-1591

The rates approved in this agreement are for use on grants, contracts and other agreements with the Federal Government, subject to the conditions in Section III.

SECTION I: INDIRECT COST RATES

RATE TYPES:	FIXED	FINAL	PROV. (PROVISIONAL)	PRED. (PREDETERMINED)
<u>EFFECTIVE PERIOD</u>				
<u>TYPE</u>	<u>FROM</u>	<u>TO</u>	<u>RATE(%) LOCATION</u>	<u>APPLICABLE TO</u>
PRED.	07/01/2016	06/30/2018	57.00 On-Campus	Organized Research
PRED.	07/01/2016	06/30/2018	28.50 Off-Campus	Organized Research (A)
PRED.	07/01/2016	06/30/2018	26.00 Off-Campus	Organized Research (B)
PRED.	07/01/2016	06/30/2018	51.00 On-Campus	Instruction
PRED.	07/01/2016	06/30/2018	28.50 On-Campus	Other Sponsored Activities
PROV.	07/01/2018	06/30/2020		Use same rates and conditions as those cited for fiscal year ending June 30, 2018.

*BASE

ORGANIZATION: Vanderbilt University

AGREEMENT DATE: 5/19/2017

Modified total direct costs, consisting of all direct salaries and wages, applicable fringe benefits, materials and supplies, services, travel and up to the first \$25,000 of each subaward (regardless of the period of performance of the subawards under the award). Modified total direct costs shall exclude equipment, capital expenditures, charges for patient care, rental costs, tuition remission, scholarships and fellowships, participant support costs and the portion of each subaward in excess of \$25,000. Other items may only be excluded when necessary to avoid a serious inequity in the distribution of indirect costs, and with the approval of the cognizant agency for indirect costs.

ORGANIZATION: Vanderbilt University

AGREEMENT DATE: 5/19/2017

SECTION I: FRINGE BENEFIT RATES**

<u>TYPE</u>	<u>FROM</u>	<u>TO</u>	<u>RATE(%)</u>	<u>LOCATION</u>	<u>APPLICABLE TO</u>
FIXED	7/1/2017	6/30/2018	23.00	Univ Central	Full-Time Faculty / Staff / Summer
FIXED	7/1/2017	6/30/2018	10.75	Univ Central	Part-Time / Temporary
PROV.	7/1/2018	Until amended			Use same rates and conditions as those cited for fiscal year ending June 30, 2018.

** DESCRIPTION OF FRINGE BENEFITS RATE BASE:
Salaries and wages.

ORGANIZATION: Vanderbilt University

AGREEMENT DATE: 5/19/2017

SECTION II: SPECIAL REMARKS

TREATMENT OF FRINGE BENEFITS:

The fringe benefits are charged using the rate(s) listed in the Fringe Benefits Section of this Agreement. The fringe benefits included in the rate(s) are listed below.

TREATMENT OF PAID ABSENCES

Vacation, holiday, sick leave pay and other paid absences are included in salaries and wages and are claimed on grants, contracts and other agreements as part of the normal cost for salaries and wages. Separate claims are not made for the cost of these paid absences.

OFF-CAMPUS DEFINITION: For all activities performed in facilities not owned by the institution and to which rent is directly allocated to the project(s), the off-campus rate will apply. Actual costs will be apportioned between on-campus and off-campus components. Each portion will bear the appropriate rate.

ORGANIZATION: Vanderbilt University

AGREEMENT DATE: 5/19/2017

Fringe Benefits include: FICA, Retirement, Flexible Reimbursement Account, Disability Insurance, Life Insurance, Employee Tuition Remission, Occupational Health Clinic, Unemployment Insurance, Workers' Compensation, Health Plus and Health Insurance.

Equipment means an article of nonexpendable tangible personal property having a useful life of more than one year, and an acquisition cost of \$5,000 or more per unit.

APPLICATION OF INDIRECT COST RATES TO DOD CONTRACTS/SUBCONTRACTS:

In accordance with DFARS 2231.303, no limitation (unless waived by the institution) may be placed on the reimbursement of otherwise allowable indirect cost rates incurred by an institution of higher education under a DOD contract awarded on or after November 30, 1993, unless the same limitation is applied uniformly to all other organizations performing similar work. It has been determined by the department of Defense that such limitation is not being uniformly applied. Accordingly, the following rates do not reflect the application of the 26% limitation on administrative indirect costs imposed by OMB Circular A-21.

PRED. 07/01/16 to 06/30/18 58.8% On-Campus Organized Research
PRED. 07/01/16 to 06/30/18 30.3% Off-Campus Orgn. Research (A)
PRED. 07/01/16 to 06/30/18 27.8% Off-Campus Orgn. Research (B)
PROV. 07/01/18 to 06/30/20 Use Same rates and conditions
as those cited for fiscal year ending June 30, 2018.

(A) Off-Campus, Adjacent: Location within 50 miles commuting distance of the University.

(B) Off-Campus: Location beyond 50 miles commuting distance of the University.

NOTE: This agreement updates the fringe benefits rates section only. All other previously issued terms and conditions remain unchanged.

ORGANIZATION: Vanderbilt University

AGREEMENT DATE: 5/19/2017

SECTION III: GENERAL

A. LIMITATIONS:

The rates in this Agreement are subject to any statutory or administrative limitations and apply to a given grant, contract or other agreement only to the extent that funds are available. Acceptance of the rates is subject to the following conditions: (1) Only costs incurred by the organization were included in its facilities and administrative cost pools as finally accepted; such costs are legal obligations of the organization and are allowable under the governing cost principles; (2) The same costs that have been treated as facilities and administrative costs are not claimed as direct costs; (3) Similar types of costs have been accorded consistent accounting treatment; and (4) The information provided by the organization which was used to establish the rates is not later found to be materially incomplete or inaccurate by the Federal Government. In such situations the rate(s) would be subject to renegotiation at the discretion of the Federal Government.

B. ACCOUNTING CHANGES:

This Agreement is based on the accounting system purported by the organization to be in effect during the Agreement period. Changes to the method of accounting for costs which affect the amount of reimbursement resulting from the use of this Agreement require prior approval of the authorized representative of the cognizant agency. Such changes include, but are not limited to, changes in the charging of a particular type of cost from facilities and administrative to direct. Failure to obtain approval may result in cost disallowances.

C. FIXED RATES:

If a fixed rate is in this Agreement, it is based on an estimate of the costs for the period covered by the rate. When the actual costs for this period are determined, an adjustment will be made to a rate of a future year(s) to compensate for the difference between the costs used to establish the fixed rate and actual costs.

D. USE BY OTHER FEDERAL AGENCIES:

The rates in this Agreement were approved in accordance with the authority in Title 2 of the Code of Federal Regulations, Part 200 (2 CFR 200), and should be applied to grants, contracts and other agreements covered by 2 CFR 200, subject to any limitations in A above. The organization may provide copies of the Agreement to other Federal Agencies to give them early notification of the Agreement.

E. OTHER:

If any Federal contract, grant or other agreement is reimbursing facilities and administrative costs by a means other than the approved rate(s) in this Agreement, the organization should (1) credit such costs to the affected programs, and (2) apply the approved rate(s) to the appropriate base to identify the proper amount of facilities and administrative costs allocable to these programs.

BY THE INSTITUTION:

Vanderbilt University

(INSTITUTION)

(SIGNATURE)

Eric Kopstain

(NAME)

Vice Chancellor for Administration

(TITLE)

6/26/2017

(DATE)

ON BEHALF OF THE FEDERAL GOVERNMENT:

DEPARTMENT OF HEALTH AND HUMAN SERVICES

(AGENCY)

Darryl W. Mayes -A

Digitally signed by Darryl W. Mayes -A
DN: c=US, o=US Government, ou=HHS, ou=PSC,
ou=People, o=D.2342.18200100 100 1.1=2000131669,
cn=Darryl W. Mayes -A
Date: 2017.05.26 07:27:29 -0400

(SIGNATURE)

Darryl W. Mayes

(NAME)

Deputy Director, Cost Allocation Services

(TITLE)

5/19/2017

(DATE) 0325

HHS REPRESENTATIVE:

Steven Zuraf

Telephone:

(301) 492-4855

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C.1352

Approved by OMB

4040-0013

1. * Type of Federal Action: <input type="checkbox"/> a. contract <input checked="" type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance	2. * Status of Federal Action: <input type="checkbox"/> a. bid/offer/application <input checked="" type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award	3. * Report Type: <input checked="" type="checkbox"/> a. initial filing <input type="checkbox"/> b. material change
4. Name and Address of Reporting Entity: <input checked="" type="checkbox"/> Prime <input type="checkbox"/> SubAwardee * Name: <input type="text" value="Vanderbilt University Sponsored Programs Administration"/> * Street 1: <input type="text" value="110 21st Ave. South Suite 800"/> Street 2: <input type="text"/> * City: <input type="text" value="Nashville"/> State: <input type="text" value="TN: Tennessee"/> Zip: <input type="text" value="37203"/> Congressional District, if known: <input type="text" value="TN-005"/>		
5. If Reporting Entity in No.4 is Subawardee, Enter Name and Address of Prime: 		
6. * Federal Department/Agency: <input type="text" value="U S Economic Development Administration"/>	7. * Federal Program Name/Description: <input type="text" value="Cluster Grants"/> CFDA Number, if applicable: <input type="text" value="11.020"/>	
8. Federal Action Number, if known: <input type="text"/>	9. Award Amount, if known: \$ <input type="text"/>	
10. a. Name and Address of Lobbying Registrant: Prefix <input type="text"/> * First Name <input type="text" value="NA"/> Middle Name <input type="text"/> * Last Name <input type="text" value="NA"/> Suffix <input type="text"/> * Street 1: <input type="text" value="NA"/> Street 2: <input type="text"/> * City: <input type="text" value="NA"/> State: <input type="text"/> Zip: <input type="text"/>		
b. Individual Performing Services (including address if different from No. 10a) Prefix <input type="text"/> * First Name <input type="text" value="NA"/> Middle Name <input type="text"/> * Last Name <input type="text" value="NA"/> Suffix <input type="text"/> * Street 1: <input type="text" value="NA"/> Street 2: <input type="text"/> * City: <input type="text" value="NA"/> State: <input type="text"/> Zip: <input type="text"/>		
11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when the transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure. * Signature: <input type="text" value="Michele Austin"/> * Name: Prefix <input type="text"/> * First Name <input type="text" value="not applicable"/> Middle Name <input type="text"/> * Last Name <input type="text" value="not applicable"/> Suffix <input type="text"/> Title: <input type="text"/> Telephone No.: <input type="text"/> Date: <input type="text" value="08/29/2018"/>		
Federal Use Only:		Authorized for Local Reproduction Standard Form - LLL (Rev. 7-97)