Agenda Item 3

NIIMBL Grant Presentation
TOPIC: NIIMBL Grant Presentation (information item)

COMMITTEE: Economic Development and Technology Commercialization

DATE OF COMMITTEE MEETING: January 26, 2017

SUMMARY: As part of a national public-private partnership, the USM (UMB and UMCP) will be a key partner to leverage a $70 million cost-shared agreement with NIST to advance U.S. competitiveness in biopharmaceutical manufacturing through the establishment of the National Institute for Innovation in Manufacturing Biopharmaceuticals (NIIMBL).

Much of the research and collaboration with NIST will take place at USM’s Institute for Bioscience and Biotechnology research (IBBR) at Shady Grove. NIIMBL will help to advance U.S. leadership in the biopharmaceutical industry, foster economic development, improve medical treatments and ensure a qualified workforce by collaborating with educational institutions to develop new training programs matched to specific biopharma skill needs. In addition to the federal funding, the new institute is supported by an initial private investment of at least $129 million from a consortium of 150 companies, educational institutions, research centers, coordinating bodies, non-profits and Manufacturing Extension Partnerships across the country. The consortium is establishing a new non-profit organization called USA Bio LLC to administer the cooperative agreement with NIST. Dr. Bill Bentley, co-PI for the NIIMBL proposal and director of the Robert E. Fischell Institute for Biomedical Devices, will brief the Committee on this initiative.

ALTERNATIVE(S): This item is for information purposes.

FISCAL IMPACT: This item is for information purposes.

CHANCELLOR’S RECOMMENDATION: This item is for information purposes.

------------------------
COMMITTEE RECOMMENDATION:  DATE:
------------------------
BOARD ACTION:  DATE:
------------------------
SUBMITTED BY: Tom Sadowski / Suresh Balakrishnan (301) 445-2783
Committee on Economic Development and Technology Commercialization

NIIMBL Grant Presentation

January 26, 2017
Our Mission

The NIIMBL mission is to accelerate biopharmaceutical manufacturing innovation, support the development of standards that enable more efficient and rapid manufacturing capabilities, and educate and train a world-leading biopharmaceutical manufacturing workforce, fundamentally advancing U.S. competitiveness in this industry.
Manufacturing USA Network of Institutes

Focus is to address market failure of insufficient industry R&D in the “missing middle” to de-risk/speed-up promising new technologies

AND address the education and workforce gaps on these technologies
Other launched NNMI institutes:
- Flexible Hybrid Electronics
- Additive Manufacturing
- Integrated Photonics
- Digital Mfg & Design
- Light Metal Manufacturing
- Advanced Composites
- Wide Bandgap Semiconductors
- Advanced Textiles
- Smart Manufacturing
- RAPID Process Intensification
What is Biomanufacturing?

- 853,818 Direct Jobs
  (33% are STEM Occupations)
- 4,446,365 Total U.S. Jobs

$1.2 Trillion U.S. Economic Output

U.S. economic output represents the value of goods and services produced by the sector.

Education and Workforce Training Program

- Establishment of competency standards.
- Dissemination of best practices within a national network of community colleges.
- Engagement at all educational levels.
- Combination of online and in-person training in GMP environments.
- Development of custom on-site or off-site training programs.
- Establishment of training programs for stackable credentials & certifications.
Expertise & Facilities

Broad expertise among partners and a national network of shared facilities for prototyping and demonstration projects.

140+ Partners

A public-private partnership of industry, academic, and government entities.

$250M / 5 yrs

Extensive commitments from partners will leverage $70M Federal funding.

Best-In-Class Workforce

Built upon high impact biopharmaceutical manufacturing workforce training paradigms.

AMERICAN INNOVATION AT WORK
MARYLAND

Bioprocessing
- Continuous
- Cell expansion

Process Analytical Tech.
- Fischell Inst. Biomed. Devices
- Protein Characterization

Integrated Teams
- Company/NIST/FDA/Univ.

Integrated Facilities
- nonGMP training
- Bioprocess testing

New devices/methodologies for process/product analysis
Potential partners
Thank you for your attention!