AMERICAN INNOVATION AT WORK

Life Sciences Caucus
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Our Mission...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.

Addressing...High cost of production, advent of biosimilars, rapidly development of new therapies, novel analytical techniques, regulatory science, enhanced safety, efficacy and potency for existing and emerging products, better access of medicine to patient populations
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

Content Credit: Mike Molnar, Director
NIST Advanced Manufacturing Office
Manufacturing USA Institute Network

Manufacturing Innovation Institute
- Applied research
- Technology development
- Prototype labs/shops
- Manufacturing software development
- Education and workforce development

Shared Use Facilities
- Manufacturing demonstrations
- Technology workshops
- Manufacturing technology services

Other institutes:
- Flexible Hybrid Electronics
- Additive Manufacturing
- Integrated Photonics
- Digital Mfg & Design
- Light Metal Manufacturing
- Advanced Composites
- Wide Bandgap Semiconductors
- Advanced Textiles
- Smart Manufacturing
- Process Intensification
- Advanced Robotics

Academia and National Labs
- Universities
- Community Colleges
- National Labs

Industry
- Large Companies
- Small and Mid-Sized Enterprises
- Start-ups

Government
- Federal Government
- State and Local Government
- Economic Development Organizations

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NIST Advanced Manufacturing Office

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NIIMBL is funded by a $70,000,000 cooperative agreement from the National Institute of Standards and Technology and leverages >$150,000,000 in other commitments.

NIST is a non-regulatory federal agency within the U.S. Department of Commerce. NIST's mission is to promote U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology in ways that enhance economic security and improve our quality of life.
PARTNERS NOTIONAL, PENDING SIGNED MEMBERSHIP AGREEMENT
NIIMBL National Map

NIIMBL ECOSYSTEM
150+ Partners, 60 Industry Members, 35+ Academic Members, 35+ Non-profits
North Carolina Participation in NIIMBL

**Tier 1**  
NC State (BTEC, MEP)  
UNC Wilmington

**Tier 2**  
UNC Chapel Hill  
NC Central (BRITE)  
East Carolina University

**Tier 3**  
NCCCS (NC BioNetwork)  
UNC Charlotte  
Brunswick Community College  
Forsyth Community College  
North Carolina Biotechnology Center (NCBC)  
NC Biosciences Organization (NCBIO)

$2 MM Cost Share from State of NC, 2017-2018
NIIMBL Programs

- Technical Development Projects (2 Project calls / year)
- Education and Workforce Development Projects (2 Project calls / year)
- Standards and Regulatory Science Projects
- Regional nodes of excellence
- K-12 Outreach
- Manufacturing Extension Partnership (MEP)
- Active involvement of NIST and regulatory agencies (FDA)
- US-Specific roadmap for Biopharmaceutical Manufacturing
- Teaming Meetings, National Meetings, Special Workshops
- Community Portals: Assets, programs, jobs, internships
NIIMBL Benefits to North Carolina

- Recognition of NC leadership in Biopharmaceutical Manufacturing
- National visibility for NCBioImpact, NCBC, NCBIO, others
- National network of industry, academic and government leaders
- New range of partnerships
- Opportunities to attract new companies
- Opportunities to foster small companies, jobs, economic development
- Significant source of funding for technical and educational programs
- Direct line to the industry’s future: Cell & gene therapies, vaccines, personalized medicine, immunotherapies
- Safer, more effective, more accessible drugs for patients
Thank You!

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