



2007 STEM Summit IV: Accelerating Forward

Building Bridges

John Sauers

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Personal Introduction

- John Sauers
 - Site Training Manager, Abbott Bioresearch Center
 - Biotech manufacturing, Quality Assurance and training since 1985
 - B.S. Biology, UMass/Boston, 1983
 - Masters of Education, UMass/Boston, 2007
 - Biotech workforce training and education:
 - Quinsigamond Community College, 1993 to present
 - WPI, 2007 (on-going)
 - Active involvement with the MBC and other industry groups

The Current Landscape – The Good News

- Biotech has never been stronger
- Major pharmaceutical companies are looking for more and more biologically derived therapeutics
- Massachusetts is one of the central hubs of biotech development and manufacturing
 - Decision by Bristol-Myers Squibb to build their biologics manufacturing plant at the Devens campus was ***HUGE!***
- Major generator for jobs and revenues for the state
- Business and academic infrastructure in Massachusetts **should** be a springboard for success

The Current Landscape – The Challenges

- Other states and countries aren't sitting on the sidelines, cheering for Massachusetts
- States and countries with **major** biotech business and academic initiatives:
 - North Carolina, California, New York, Maryland, New Hampshire, Indiana
 - Ireland, Singapore, China, India
 - Puerto Rico

Collaboration/Coordination Is The Key!!!

A Case Study

The North Carolina Biomanufacturing and Pharmaceutical Training Consortium



- Forums**
- Biotech Manufacturers' Forum
- Emerging Companies Forum
- Medical Device Forum
- Pharmaceutical Manufacturers Forum
- Agricultural Biotechnology Forum



NCBIO: Biomufacturing and Pharmaceutical Training Consortium

NCBIO and its Biotech Manufacturers Forum have partnered with North Carolina's universities and community colleges, the North Carolina Golden LEAF Foundation, and the North Carolina Biotechnology Center to establish a statewide biomufacturing training program called the North Carolina Biomufacturing & Pharmaceutical Training Consortium ("BPTC"). The BPTC is a collaborative effort by industry, the North Carolina Community College System, North Carolina State University, North Carolina Central University and the University of North Carolina System to provide top quality training and educational opportunities for North Carolinians seeking employment in biomufacturing-related industries. The BPTC includes

- BioNetwork, the Community College System's statewide network of campus-based education and training programs for biotechnology, pharmaceutical and biologics manufacturing, and related business and science curriculum
- The Biotechnology Training and Education Center (BTEC) at North Carolina State University, a unique state-of-the-art manufacturing and training center designed to provide students with hands-on experience with commercial-scale pharmaceutical and biologics manufacturing equipment and technologies
- The Biomufacturing Research Institute and Training Enterprise (BRITE) at North Carolina Central University, designed to provide bachelors and advanced education in pharmaceutical and bioprocess development and related disciplines.

Construction and initial operation of BPTC's facilities and programs has been funded by a \$60 million grant from the North Carolina Golden LEAF Foundation. The North Carolina General Assembly has tentatively approved \$11.9 million in operational funding for BPTC programs in the 2005-06 fiscal year.

For more information on the Biomufacturing and Pharmaceutical Training Consortium, see the following links and documents:

Other Sites

North Carolina's Biotech Bus!

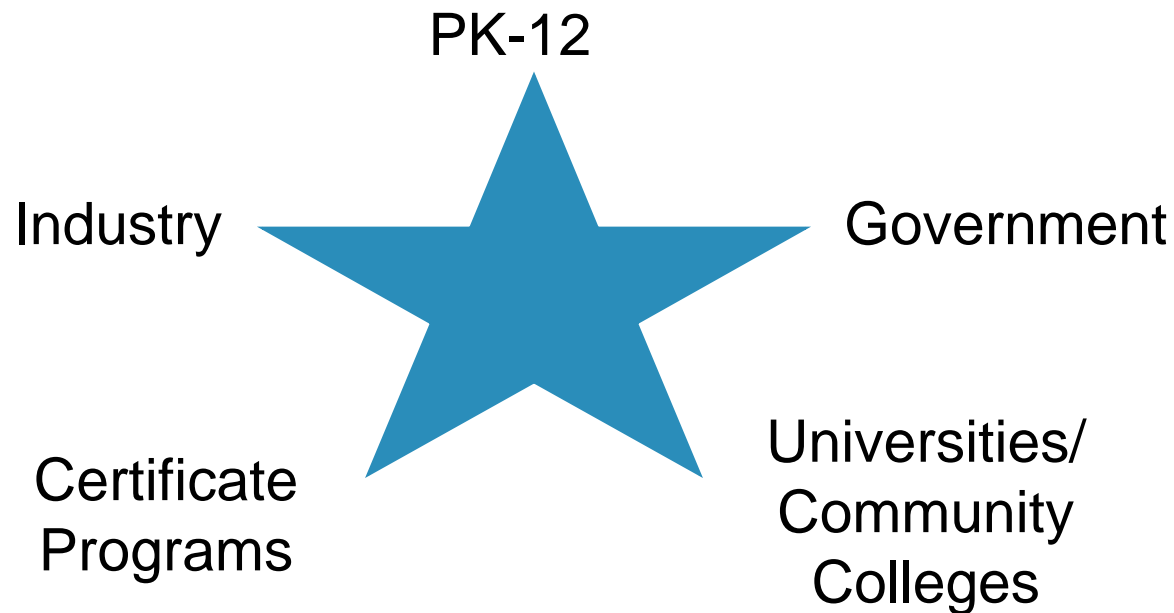


What Do We Need To Do?

Build Bridges!

Macro Level (Statewide)

- Coordinate efforts between industry, government, academia and other interest groups
- The right hand needs to know what the left hand is doing!



PK-12: What Can You Do?

- Get excited about biotech!
 - Get to know your local biotech company
 - Arrange for tours of biotech facilities
 - Invite speakers from biotech companies
 - Have a **BIOTECH DAY** at school
 - Establish internships (for students)
 - Establish internships (for teachers!)

For More Information.....

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