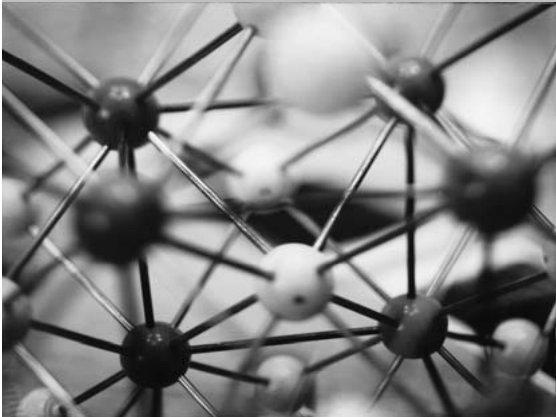


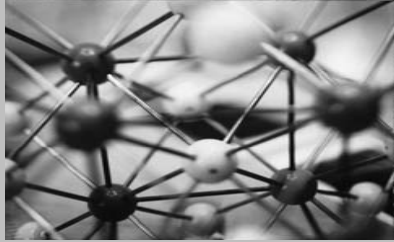
Pipelines & Pathways



Connecting
Educational
Resources

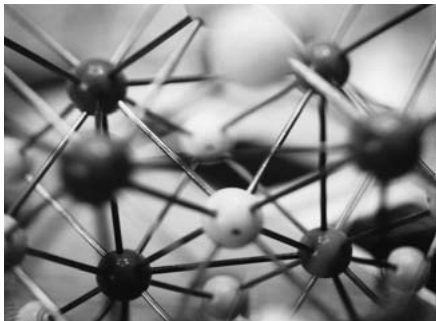
Presented by Dr. Kathleen Noble
Associate Vice Chancellor for Continuing Education Services
Tarrant County College
August 2009





Connecting Texas Educational Resources

- Nanoscience will affect nearly every major industry in the United States.
- Advances in nanotechnology are developing faster than the workforce can be trained.
- Texas educational resources will provide the pipelines and connections to connect nanotechnology and the workforce.



NDCC Grant Objectives

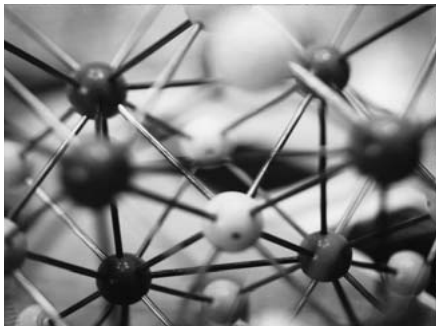
Year 1

- Conducted analysis of existing curricula in ISDs, community colleges & universities aimed at preparing workers to deal with nanotechnology.
- 30 responded—10 from each category.



NDCC Grant Objectives Year 1

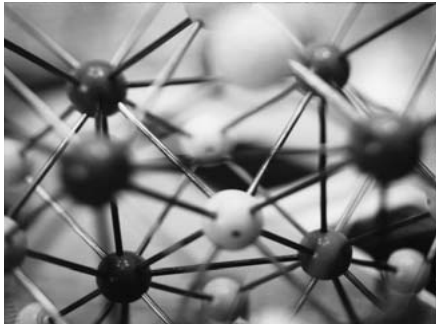
- Of the 30 schools that responded:
 - 6 offered nanotechnology training
 - 2 offered introductory courses
 - 2 offered degrees or certifications
 - 2 offered graduate-level programs
 - Future Plans:
 - 2 schools planned to develop a program
 - 10 were considering creating a program
 - 14 had no plans to develop a program



NDCC Grant Objectives

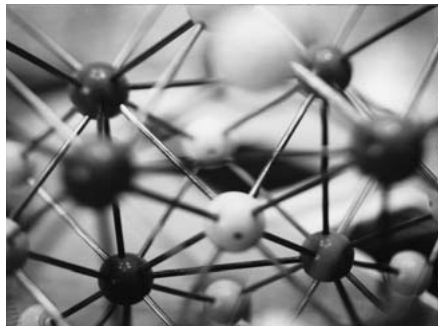
Year 1

- Conducted analysis of industry needs in the workforce.
- Created a communication infrastructure to serve education and industry partners.
- Created a database containing information on education opportunities for nanotechnology workers.



NDCC Grant Proposal Year 2

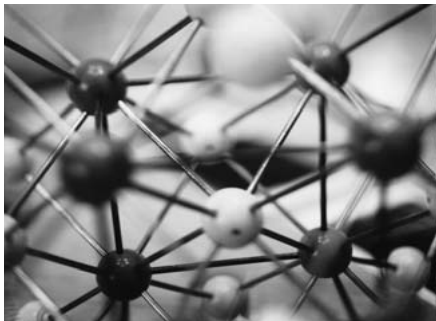
TCC, in collaboration with the NDCC, is seeking \$1.5 million in funding from TWC to help provide a trained nanoscience technology workforce to lead the way in the in the “Molecular Era” economy.



NDCC Grant Focus Year 2

Focus on 4 primary areas

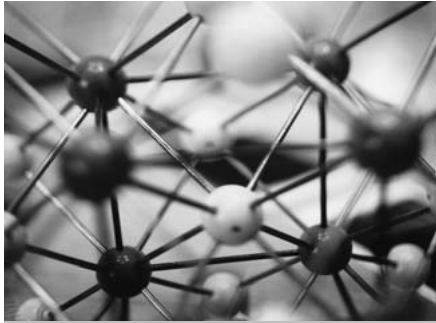
1. Design & develop new transformational materials for aerospace industry.
2. Establish fabrication processes to make designer materials.
3. Incubate, invest, and launch new nanomaterials supplier networks.
4. Identify workforce skills and knowledge needed to sustain the new & transformed companies to anchor the new industrial era.



NDCC Grant Objectives

Year 2

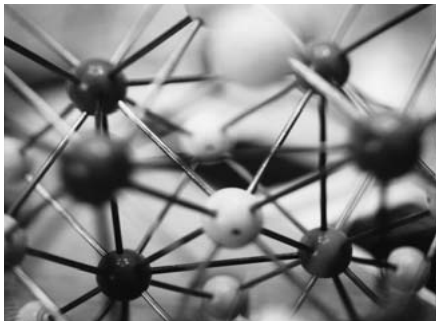
1. Create an intern demonstration center to train specific job skills for nanotechnology workers
 - Demonstrate latest innovations in nanomaterials and fabrication processes.
 - Interns will experience nanotechnology equipment, materials, and processes first hand.



NDCC Grant Objectives

Year 2

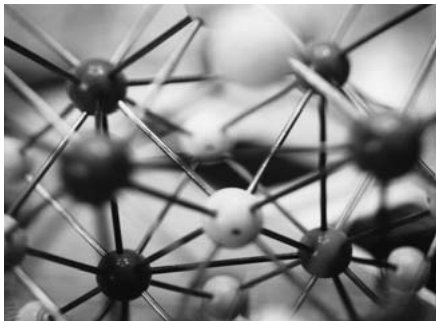
2. Develop an internship demonstration model.
 - Collaborate with industry partners to identify skill sets.
 - Train future aerospace & advanced manufacturing workers.



NDCC Grant Objectives

Year 2

3. Train 160 interns from ISDs, CCs and universities in TX.
 - Collaborate with industry partners to identify internship placement opportunities.
 - Monitor internship training and progress.



NDCC Grant Outcome Year 2

- Provide innovative nanoscience materials systems and production solutions to today's business and industries.