

A decorative graphic consisting of a yellow circle on the left side. A blue bracket is positioned on the left side of the circle, and a yellow bracket is on the right side. A horizontal bar with a red-to-brown gradient is overlaid on the circle and brackets.

Regional Strategies

non-traditional, cluster-based grant programs

Bridges to the Future – Initiating a
Comprehensive Biotech Program at UH
Biotechnology and Life Sciences Cluster

Meeting Industries' Critical Workforce Needs

Bridges to the Future

Executive Summary

- The mission of this project is to develop
 - An academic program with a bioinformatics and bioprocessing track, with an emphasis on environmental biotechnology,
 - Training programs in the form of short courses for the biotechnology workforce.
- These programs will address current and future needs of the Biotechnology Industry.
- Collaboration with industry and academic partners in designing new curricula that will provide students with a breadth of knowledge and skills across a variety of scientific and technological disciplines to better prepare them for employment in biotech industry

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Regional Partners and Stakeholders

- **Key partners:** UH, CLiST, Reactive Surfaces, Introgen Therapeutics Inc, Encysive Pharmaceuticals Inc.
- **Key stakeholders**
 - Biotech companies, academic and research institutions.
 - Biotech industry advisory groups
 - Regional EDOs
 - Target impact groups
 - Incumbent or dislocated workers
 - Youth entering the pipeline
 - Transitioning workers
 - Development of high school teachers

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Cluster Impact Strategies & Deliverables

- **Undergraduate Degree Program in Biotech**
 - Deliverable: Design new instructional material ,Outcome: Develop new instructional material in collaboration with Industry partners
 - Facility Development: designing new lab facility
- **Training programs**
 - Develop short courses in collaboration with industry partners for incumbent and entrant biotech workers and assessment of short courses by Industry Advisory Board
- **Recruitment and Awareness**
 - Conduct High School Summer workshops (CLiST/Ookpik)
 - Web- portal development and newsletter (www.TexasBiotech.org)
- **Collaborations and Partnerships**
 - CLiST Consortium, 80 members in the organization and growing
- **Sustainable Strategy**
 - Seed Funding (NSF, TWC), strong industry support, equipment donation, articulations with community colleges, revenues generated through student fees, adaptation of curricular material by other institutions.

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Key Issues and Challenges

- Recruitment during the initial phases of the program
- Communication between higher ed and high school personnel

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Primary Contacts

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