

Beyond the Next Level ... The Road to Nobel

Peers, Mentors, and Messaging: Broadening Participation in STEM

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Louis Stokes Alliance for Minority Participation



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NOBEL LAUREATES 1901 - 2015



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Foundations for Mentoring “Next Gen” STEM Leaders



**STEM
Identity**



**Sense of
Community**



**Strength-
Based
Approaches**



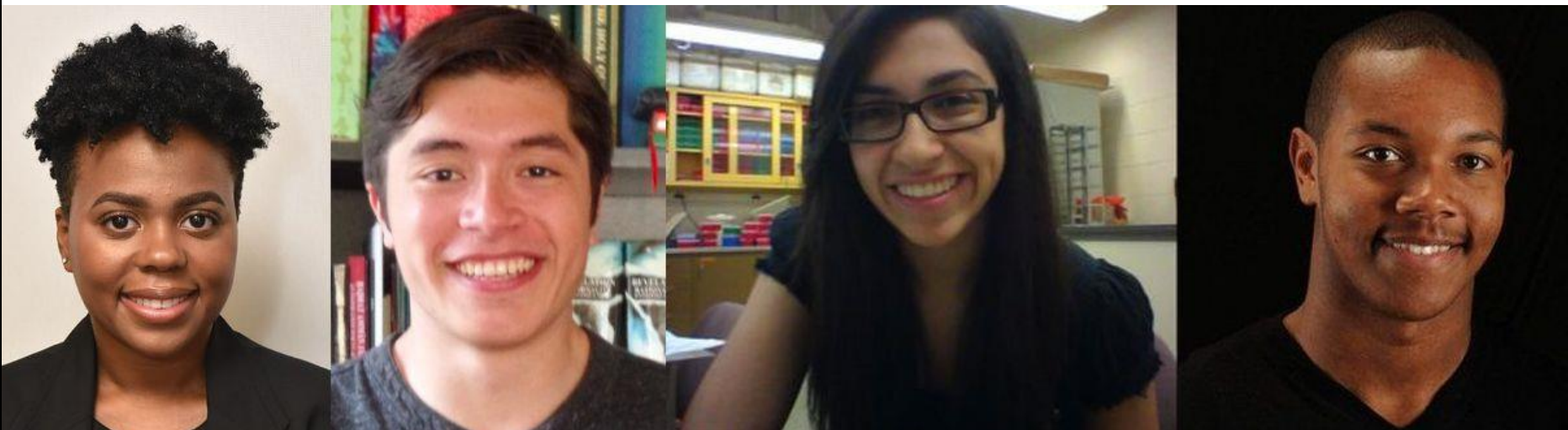
**Institutional
Culture Shift**

STEM Identity

*Performance
Competence
Recognition*



NEXT



- **Future Dr.** Dania Morris, Human Reliability Engineering (UMCP)
- **Future Dr.** Anthony Ayala, Chemistry (UMCP)
- **Future Dr.** Brenda Gutierrez, Biochemistry & Molecular Biology (UMBC)
- **Future Dr.** Kendell Queen, Computer Engineering (UMBC)

INCLUSIVE EXCELLENCE: Simultaneously embraces the diversity of students and promotes academic excellence for all students.

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Sense of Community

Membership
Influence
Integration & Fulfillment of Needs
Shared Emotional Connection



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Strength-Based Approaches

*Academic and Social Integration
Knowledge and Skill Development
Support and Motivation
Monitoring and Advising*

The road to “Nobel” starts early



- High School faculty training: Research Opportunities, e.g., MSRI, NASA
- Multi-tiered Mentoring: Teachers meet mentors, who “grand-mentor” students
- High School – University Collaborations: Project Lead the Way – Training for HS teachers at universities, college credit for HS students in “engineering pathway” programs.

Invite & admonish students to be the next STEM laureates.

Institutional Culture Shift

1. *Financial Scholarship*
2. *Recruitment Weekend*
3. *Summer Bridge*
4. *Study Groups*
5. *Program Values*
6. *Program Community*
7. *Staff Advising/Counseling*
8. *Summer/Ac. Year Research*
9. *Faculty Involvement*
10. *Administrative Involvement*
11. *Community Service*
12. *External Mentors*
13. *Family Involvement*

Next

