

Increasing the Success of Underrepresented STEM PhD Students

Presented by:

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Brown University

December 6, 2013

CGS Annual Meeting



Brown Experience

- **Low Attrition**
- **No differential: URM and non-URM**
- **Potential Factors**
 - **Culture**
 - **Scale and Support**
 - **Advising**
 - **Outreach**



Cultural Context

- Complex history (250 years in 2014!)
- Culture of tolerance
 - First in Ivy League to accept students from all religious affiliations
 - Signs of inclusion
 - First Brown PhD awarded to a woman in 1897
 - Asian American in 1921
 - African American in 1932
 - Hispanic American in 1957
 - Native American in 1984
 - Tolerance requires tending
- Home of Leadership Alliance



Scale and Support

- Scale May Foster Mentoring
- PhD support: 5-year guarantee
- Community and networking opportunities:
 - Multicultural Graduate Student events
 - LGBTQ support
 - Academy in Context dinner-seminars



Advising & Mentoring

- Guidelines, Individual Development Planning tool, and advising agreement template
- Clear process for advisor selection/assignment
- Ability to change/have multiple mentors
- Annual student evaluations
- Early research experience as mentoring tool
- Targeted mentoring in dissertation writing stage
- Mentoring training for faculty and graduate students



Life Sciences Initiative



Andrew Campbell,
Associate Professor of
Medical Science,
developed the program

- Initiative to Maximize Student Development (IMSD)
- Started in Pathobiology PhD program
- Now targets enrollment and achievement in 9 Life Sciences Programs
- Encourages applications at 4 partner schools
- Provides minicourses to address gaps in training
- Results in four years: Improved recruiting and performance of URM students

A. G. Campbell et al., *CBE Life Sci Educ* 12, 394.



IMSD MiniCourses

- Examples:
 - Reading Scientific Publications
 - Demystifying the PhD Experiences
 - Giving and Receiving Criticism on Research Proposals
- Popular with students from all backgrounds



Advising and Mentoring



Jabbar Bennett,
Associate Dean for
Recruiting & Professional
Development

Graduate School:

- Assist students in identifying multiple faculty mentors
- Assist in developing peer mentoring programs
- Foster university-wide community of URM students
- Track students' academic progress
- Have process for grievances, conflict resolution, and access to ombudsperson
- Host seminars/workshops for URM students
- Convene routine meetings between graduate deans and program directors

Faculty members and departments:

- Provide graduate handbook to students
- Hold program/department orientation for new graduate students
- Assign designated advisor upon enrollment
- Offer clear process for selection/assignment of advisors
- Provide information on changing advisors
- Provide targeted mentoring for students in the dissertation writing stage
- Support peer mentoring programs
- Offer new faculty advising/mentoring workshops



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