

**Quality Education for Minorities (QEM) Network
Follow-up Workshop to HSI-STEM Outreach Forum
Overview of NSF Programs and Proposal Opportunities
December 4-5, 2009**

Las Vegas Hilton • 3000 Paradise Road • Las Vegas, NV • Tel. 702/732-5111

AGENDA

Purpose: To provide STEM faculty from an expanded group of HSIs with information on existing programs at the National Science Foundation (NSF) that offer support in several of the areas of critical needs in STEM identified by the September 2009 Outreach Forum participants.

THURSDAY, DECEMBER 3

PM

7:00–9:00 *Early Registration* *Pavilion 2*

FRIDAY, DECEMBER 4

AM

8:00 *Registration and Continental Breakfast* *Pavilion 2/Pavilion 1*

9:00 *Welcome, Introductions, and Review of Session Packet* *Pavilion 2*
 Shirley McBay, President
 Quality Education for Minorities (QEM) Network

Welcoming Remarks from NSF

 James Wyche, Director
 Division for Human Resource Development (HRD)
 Directorate for Education and Human Resources (EHR), NSF

9:30 *Update on September 2009 Forum Draft Report and Related Activities*
 J. Arthur Jones, Senior Associate, QEM Network
 Carlos Rodriguez, Principal Research Scientist
 American Institutes for Research, and QEM Consultant

10:15 *Coffee Break*

10:30 Panel of NSF Program Directors from the Directorate for Education and *Pavilion 2*
 Human Resources (EHR) and NSF's Office of Integrative Activities

Topic: *NSF's Broadening Participation Portfolio: A Closer Look at
the Critical Needs/Priority Areas in STEM Identified at the Forum
that Could Be Addressed by Existing NSF Programs*

- EHR/Division of Human Resource Development (HRD)
 Michael Fredenberg, Program Director
- EHR/Division of Undergraduate Education (DUE)
 Kathleen Bergin, Program Director
- EHR/Division of Research on Learning in Formal and Informal Settings (DRL)
 Julia Clark, Program Director
- NSF Cross-Directorate Programs, Office of Integrative Activities (OIA)
 Mayra Montrose, Science Policy Analyst, OIA

Panelists are to provide an overview of existing programs within their respective divisions that may address one or more of the broad categories of needs identified at the Forum:

- 1) Student Support
- 2) Faculty Development
- 3) STEM Curricula Enhancement
- 4) Partnerships (including Articulation Agreements and K-12 or Industry Outreach)
- 5) Laboratory Improvement (space, instrumentation, and equipment)

11:30 Panel of NSF Program Directors from the following Directorates: *Pavilion 2*

- Biological Sciences (BIO)
Sally O'Connor, Program Director
Division of Biological Infrastructure (DBI)
- Engineering (ENG)
Omnia El-Hakim, Program Director of Diversity and Outreach
- Mathematical and Physical Sciences (MPS)
Tyrone Mitchell, Program Director, Division of Chemistry

Topics:

- *Research Experiences for Undergraduates (REU)*
- *Broadening Participation Initiatives within each Directorate*

PM

12:30 *Working Lunch* *Pavilion 1*

Topic: *NSF Panel/Ad Hoc Review and Rotator Opportunities*
Tyrone Mitchell, Program Director, Division of Chemistry, MPS

Note: Concurrent Sessions offered on Friday are repeated on Saturday to maximize the number of sessions individual team members can attend.

1:30	Four Concurrent Sessions (Group I):
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*Identifying Funding Sources for STEM Projects –
A Closer Look at Existing NSF Programs, by Division*
(Discussion/Feedback on Proposal Ideas for Selected NSF Programs)

I: EHR/Division of Human Resource Development (HRD) *Ballroom F*

- ADVANCE - Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers
- Research on Gender in Science and Engineering (GSE)
- LSAMP - Louis Stokes Alliances for Minority Participation
- Innovation through Institutional Integration (I-cubed) Initiative
- Research on Disabilities in Education (RDE)

James Wyche, Division Director
Michael Fredenberg, Program Director

II: EHR/Division of Undergraduate Education (DUE) *Conference Rooms 5-6*

- Math and Science Partnership Program (MSP)
- Innovation through Institutional Integration (I-cubed) Initiative

Elizabeth VanderPutten, Program Director
Shirley McBay, QEM Network

III: EHR/Division of Undergraduate Education (DUE) *Conference Rooms 7-8*
 (Workforce Development Cluster)

- Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM)
- Advanced Technological Education (ATE)
- Robert T. Noyce Teacher Scholarship Program

Kathleen Bergin, Program Director
 Carlos Rodriguez, QEM Consultant

IV: EHR/Division of Graduate Education (DGE) *Conference Rooms 9-10*

- Graduate Research Fellowship Program (GRFP)
- Integrative Graduate Education and Research Traineeship Program (IGERT)
- NSF Graduate STEM Fellows in K-12 Education (GK-12)
- Science Master's Program (SMP)

Sandra Alcalá-Barraza, Congressional Hispanic Caucus Institute Fellow
 Costello Brown, Senior Associate, QEM Network

2:30 *Break*

2:45 *Tips and Techniques in Proposal Preparation (Do's & Don'ts)* *Pavilion 2*
 Parag Chitnis, Deputy Division Director
 Molecular and Cellular Biosciences (MCB), BIO

3:15	Four Concurrent Sessions (Group II): <i>Identifying Funding Sources for STEM Projects – A Closer Look at Existing NSF Programs, by Division</i> (Discussion/Feedback on Proposal Ideas for Selected NSF Programs)
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V: EHR/Division of Undergraduate Education (DUE) *Conference Rooms 7-8*
 (Curriculum, Laboratory, and Instructional Development Cluster)

- Course, Curriculum, and Laboratory Improvement (CCLI)
- National Science, Technology, Engineering, and Mathematics Education Digital Library (NSDL)
- Science, Technology, Engineering, and Mathematics Talent Expansion Program (STEP)

Kathleen Bergin, Program Director
 Terry Woodin, Program Director

VI: EHR/Division of Research on Learning in Formal and Informal Settings *Conference Rooms 5-6*

- Informal Science Education (ISE)
- Discovery Research K-12 (DR-K12)
- Innovative Technology Experiences for Students and Teachers (ITEST)

Julia Clark, Program Director
 Elizabeth VanderPutten, Program Director

VII: NSF Cross-Directorate Programs *Ballroom F*

- Major Research Instrumentation (MRI)
- Faculty Early Career Development (CAREER)
- Experimental Program to Stimulate Competitive Research (EPSCoR)

Mayra Montrose, Science Policy Analyst, OIA
 Arturo Bronson, Professor, Mechanical Engineering
 University of Texas at El Paso, and QEM Consultant

VIII: Non-EHR Directorate-focused Discussions (See Room locations below)
Topics: - Research Experiences for Undergraduates (REU)
- Broadening Participation Initiatives

VIII (a): Directorate for the Biological Sciences (BIO) *Conference Rooms 9-10*
Parag Chitnis, Deputy Division Director, MCB
Sally O'Connor, Program Director, DBI

VIII (b): Directorate for the Mathematical and Physical Sciences (MPS) *Conference Rooms 9-10*
Tyrone Mitchell, Program Director, Division of Chemistry
J. Arthur Jones, QEM Network

VIII (c): Directorate for Engineering (ENG) *Pavilion 2*
Omnia El-Hakim, Program Director of Diversity and Outreach

4:15 Plenary Session: Proposal Review *Pavilion 2*
- NSF Proposal and Award Merit Review Process
- NSF's Merit Review Criteria (Broader Impacts and Intellectual Merit)
Costello Brown, QEM Network

5:00 *Reception (with Program Officers)* *Pavilion 3*

6:30 *Adjournment, Day One and Dinner (On Your Own)*

Overnight Assignment: Teams are to revise initial concepts for a STEM proposal to one or more of the existing NSF Programs.

SATURDAY, DECEMBER 5

AM

8:00 *Continental Breakfast* *Pavilion 1*

8:30 Discussion of NSF's *Broadening Participation Portfolio* *Pavilion 2*
Fae Korsmo, Senior Advisor, Office of the Director, NSF

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9:00	REPEAT of Four Concurrent Sessions (Group I): <i>Identifying Funding Sources for STEM Projects – A Closer Look at Existing NSF Programs, by Division</i>
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Shirley McBay, QEM Network

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(Workforce Development Cluster)
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Costello Brown, QEM Network

10:00 *Coffee Break*

10:15	REPEAT of Four Concurrent Sessions (Group II):
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*Identifying Funding Sources for STEM Projects –
A Closer Look at Existing NSF Programs, by Division*

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- VIII (b): Directorate for the Mathematical and Physical Sciences (MPS) *Conference Rooms 9-10*
Tyrone Mitchell, Program Director, Division of Chemistry
J. Arthur Jones, QEM Network
- VIII (c): Directorate for Engineering (ENG) *Pavilion 2*
Omnia El-Hakim, Program Director of Diversity and Outreach
- 11:15 Plenary Session *Pavilion 2*
Group Discussion of Remaining Critical Needs that are within NSF's
Purview but are not addressed by existing NSF Programs:
Potential Elements of Proposed NSF/HSI Initiative
Facilitator: Shirley McBay, QEM Network
- PM**
- 1:00 *Working Lunch: Response from NSF* *Pavilion 1*
Wanda Ward, Acting Assistant Director, EHR
- 2:00 *Post-Award Conditions and Requirements, Project Monitoring,
and Oversight* *Pavilion 2*
Pamela Hawkins, EHR Team Leader, Division of Grants and Agreements
Office of Budget, Finance, and Award Management (BFA), NSF
- 2:45 *Fastlane Session: How to Submit Proposals and Annual Reports to NSF* *Pavilion 2*
Evelyn Baisey-Thomas, Computer and Information Specialist
Office of Information and Resource Management, NSF (retired),
and QEM Consultant
- 5:00 *Next Steps* *Pavilion 2*
Fae Korsmo, Office of the Director, NSF
Shirley McBay, QEM Network
- 5:30 *Adjournment*