



Stopping the Leaky Pipeline: Finding & Preparing Post Doctoral URM STEM Women for an Academic Faculty Career



Sponsored by the

National Science Foundation ADVANCE Institutional Transformation Award

WISEST

Program Overview

The **WISEST Post Doctoral Research Associates Program** is a unique pilot initiative specifically designed to train and mentor underrepresented minority women (URM) in STEM on track towards a successful academic career.

The Post Doctoral Research Program

- Reaches out to exceptional STEM women scholars
- Prepares these scholars to pursue an academic position with the support of a two-year comprehensive career and skill development program
- Emphasizes a dual approach – scientific research with a defined advisory team, and the essentials of career building
- Includes the Post Doctoral Institute for Career Development & Academic Diversity seminar series with topics spanning: work-life balance, managing research, preparing for a faculty job search, presentation skills, finding and competing for funding, and more

Foundation of Program

- WISEST team brainstormed to formulate a fresh approach to the post-doc experience
- Program created by working with the National Postdoctoral Association (NPA) Diversity Sub-committee
- Components recommended by the NPA:
 - MOU between advisors and post doc associate
 - Individual Career Development Plan (ICDP)
 - Seminar Series

Post Doc Research Associates Recruited for Two Year Program [August 2007- 2009].

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| OFFERS: | PROVIDES: |
| ◆ Competitive Salary | ◆ Advisors and mentors |
| ◆ benefits | ◆ Monthly workshops on professional & career development |
| ◆ Annual funds for travel to a scientific meeting | |

Expenses Shared by Host Department, Dean of the College, & WISEST

Post Doctoral Institute for Career Development & Academic Diversity

Includes a Monthly Seminar Series attended by the WISEST Post Doctoral Research Associates and other women STEM Post Doctoral Researchers

- Topics include**
 - Setting Goals & Objectives
 - Work-life Balance
 - Research Integrity & Data Management
 - Managing Research Projects
 - Getting the Mentoring you Need & Finding Networking Opportunities
 - Setting Up Collaborations
 - The Job Search
 - Getting Funded
 - Getting Published & Increasing your Visibility
 - Preparing an Application Package
 - Research Presentation Skills
 - Obtaining & Negotiating a Faculty Position
 - Proposal Presentations
 - Teaching Effectiveness
 - Budgets, timelines, etc. for an agency-targeted proposal
 - Developing a Research Program, not just a series of projects
 - Planning for Tenure
 - Leadership
 - Staffing your laboratory
 - Becoming a Mentor
 - Gender & Culture Issues & Dynamics in Academia
 - The Complete Application Package

Recruitment

The announcement was advertised through

Highly visited SCIENCE job sites namely

- Science Careers.org
- Naturejobs.com
- The Scientist
- Science jobs

Select National Postdoc Association contacts

- National Research Council Ford Foundation Diversity Fellowship Program
- AGEP: Alliances for Graduate Education and the Professoriate-National Science Foundation
- National Postdoctoral Association
- MentorNet
- SACNAS Postdoc Committee
- UNCF/Merck Postdoctoral Science Research Fellowships
- AAAS MiSciNet: Minority Scientists Network

National Postdoc Association recommended science/math organizations targeting women & minority groups

- AISES: American Indian Science and Engineering Society
- American Physical Society Committee on the Status of Women in Physics
- Association for Women in Mathematics
- Society of Women Engineers
- The Woman Astronomer

Application Process

Eligibility Requirements

- Candidate had to be a U.S. citizen or permanent resident
- Candidate must have completed a doctoral degree in a STEM field as of August 2007

Part I –Form

Materials reviewed in this stage included:

- Verification of citizenship or permanent residency
- Reference letters
- Papers / abstracts
- CV
- Career Statement

Applications were reviewed on a rolling basis by facilitators and final approval to proceed to Part II was made by the WISEST Executive Committee.

Part II- Invitation to Apply

- Candidate was required to identify a research advisor at UIC
- Candidate & potential adviser collaboratively submitted a research project

Final Selection

Selection of postdoctoral research associates was based on:

- The matching of research interest with UIC STEM faculty member
- The merit of the collaboratively designed research project submitted

Five Underrepresented Minority Women were selected from the 28 applicants

Advisory Team Roles

Research Advisor

- Helps the potential WISEST Research Associate prepare Part II of the WISEST Post Doctoral application package
- Integrates the WISEST Research Associate within the larger research team
- Meets with the WISEST Research Associate at least once a week formally or informally
- Provides access to various learning opportunities (both internally and externally) for research-related components of the WISEST Research Associate's Individual Career Development Plan (ICDP)
- Provides guidance as the WISEST Research Associate develops a vision for an independent research program as a faculty candidate, culminating in a research proposal.

Departmental Mentor

- Integrates the WISEST Research Associate within the department
- Meets with the WISEST Research Associate once a week formally or informally
- Provides access to various learning opportunities (both internally and externally) consistent with the WISEST Research Associate's ICDP
- Reviews the WISEST Research Associate's publication submissions and presentations
- Provides guidance as the WISEST Research Associate develops a vision for an independent research program as a faculty candidate and prepares her application package
- Provides advice and feedback on the WISEST Research Associate's classroom teaching during the second year of the associateship.

WISEST Facilitator Mentor

- Monthly informal meetings with the WISEST Research Associate
- Integrates the WISEST Research Associate within the department and university
- Provides access to various WISEST learning opportunities at UIC and elsewhere.

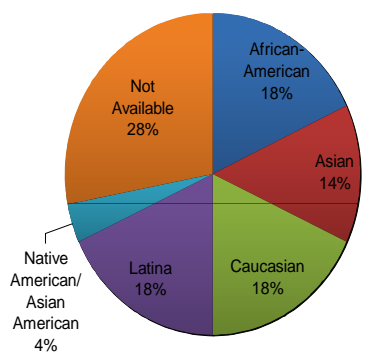
WISEST Director and Evaluation Coordinator

- Monitors the ongoing success of the initiative as a whole
- Maintains communications with the post docs and advisory team throughout the two year period.

Applicant Descriptions

GENDER & FIELD OF SPECIALIZATION of Applicants	
GENDER (N=28)	
Male	1
Female	27
FIELD OF SPECIALIZATION (N=28)	
Physics	2
Chemistry	2
Biology	6
Earth & Environmental Sciences	4
Mathematics	2
Chemical Engineering	3
Mechanical Engineering	2
Civil Engineering	1
Computer Science	2
Bioengineering	1
Electrical Engineering	1
Not Available	2

Race/Ethnicity of Applicants



WISEST People

- PI:** Mo-Yin Tam, Interim Vice Provost for Faculty Affairs; Professor of Economics
- Co-PIs:** Mitra Dutta, Head of Electrical & Computer Engineering; Distinguished Professor of Electrical & Computer Engineering
- Dwight McBride, Dean of Liberal Arts & Sciences; Professor of African-American Studies, English, and Gender & Women's Studies
- Claudia Morrissey, Asst. Dean for Faculty Advancement, College of Medicine; Clinical Associate Professor, School of Public Health
- Peter Nelson, Interim Dean of Engineering; Professor of Computer Science
- Staff:** Linda Siebert Rapoport, Director
- Manorama Khare, Data & Evaluation Coordinator
- John Cursio, Data Analyst
- Marcella Schmidt, Graduate Assistant
- Post Doctoral Subcommittees:** Cynthia Jameson (Chair), Mark Adams, Mary Ashley, Isabel Cruz, Yang Dai, Linda Siebert Rapoport
- Website:** uicwisest.org

