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

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


OFFERS: Competitive Salary
benefits
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

Program Overview

The announcement was advertised through:
- Science Careers.org
- Naturejobs.com
- The Scientist
- Science jobs

Select National Postdoc Association contacts
- National Science Foundation (NSF) - Ford Foundation Diversity Fellowship Program
- AIP: Alliance for Graduate Education and the Professoriate-National Science Foundation
- National Postdoctoral Association
- MentoreNet
- SACNAS Postdoc Committee
- UNCF/Merck Postdoctoral Science Research Fellowships
- AASL MidSciNet 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 Women Astronomers

Eligibility Requirements
- Candidate must 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 advisor collaboratively submitted a research project

Papers / abstracts
- CANDIDATE's Best Work: Research papers / abstracts
- Supervisor's Recommendations

The merit of the collaboratively designed research project submitted was assessed.

Final Selection
- Selection of postdoctoral research associates was based on:
  - The matching of research interest with UIC STEM faculty member
  - The strength of the collaboratively designed research project submitted

Five Underrepresented Minority Women were selected from the 28 applicants

Applicant Descriptions

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<th>GENDER &amp; FIELD OF SPECIALIZATION of Applicants</th>
<th>GENDER (N=28)</th>
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<tr>
<td>Bioengineering</td>
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<td>Electrical Engineering</td>
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Race/Ethnicity of Applicants

| Native Americans / Asian American | 4%          |
| Latinx                           | 16%         |
| African American                 | 18%         |
| Asian                            | 14%         |
| Caucasian                        | 18%         |
| Not Available                    | 25%         |

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) for research-related components of the WISEST Research Associate’s Individual Career Development Plan (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 associationship

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 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

WISEST People
- PI: Mo-Yin Tam, Interim Vice Provost for Faculty Affairs, Professor of Economics
- Co-PI: Nitro Dutta, Head of Electrical & Computer Engineering, Distinguished Professor of Electrical & Computer Engineering
- Dwight McClure, Dean of Liberal Arts & Sciences, Professor African-American Studies, English, and Gender & Women’s Studies
- Claudia Morrisey, Dean for Faculty Advancement, College of Medicine; Clinical Associate Professor, School of Public Health
- Peter Nauheim, Interim Dean of Engineering, Professor of Computer Science
- Staff: Linda Sibenart Rappaport, Director
- Manon Hsiao, Data & Evaluation Coordinator
- John Cursio, Data Analyst
- Marcelo Schmir, Graduate Assistant

Past Doctoral Subcommittee: Cynthia Jameison (Chair), Mark Adams, Mary Ashby, Isabella Cruz, Yong Dai, Linda Sibenart Rappaport

Website: ucwisenet.org