WOMEN IN SCIENCE AND ENGINEERING (WiSE) PROGRAM

PROGRAM REPORT
ACADEMIC YEAR 2006-2007

THE UNIVERSITY OF SOUTHERN CALIFORNIA
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Introduction

The 2006-2007 academic year has been one of change and accomplishment for the Women in Science and Engineering (WiSE) Program at the University of Southern California. With its primary objective of increasing the representation of women in science and engineering, WiSE began the 2006-2007 year having met its initial goal of doubling the number of women tenured and tenure-track faculty in science and engineering at USC in the first five years of the program. In addition, 6 new WiSE faculty were hired during the year.

The success of the USC WiSE program was celebrated by a feature article in the *Chronicle of Higher Education.* (Appendix 1) In this article, WiSE was lauded for building a comprehensive program of support for scientists and engineers at all stages of their careers, from undergraduate students to senior faculty.

Buoyed by the article’s depiction of the WiSE program as a potential national model for diversity initiatives, 2006-2007 was a year dedicated to heightening the visibility of WiSE at USC and beyond. In addition to its formal suite of funding programs, WiSE launched a number of activities to broaden its impact both on campus and nationally among institutions of higher education. Through targeted communication with stakeholder populations and the demonstrated success of the women faculty and students it supports, WiSE was able to illustrate the efficacy of the program’s approach to addressing issues of gender equity in science and engineering.

Through the program’s interactions with department chairs, search committees, deans, faculty and administrators, WiSE shared information regarding funding opportunities and associated benefits. At national conferences, strategic partnerships with similar programs at other institutions were initiated with the potential for future collaboration. Locally, in Southern California, participation in workshops and meetings also raised the profile of USC as an institution committed to addressing the under-representation of women in science and engineering. A newly designed WiSE website and promotional literature helped to further disseminate information about WiSE programs and initiatives.

This report outlines the activities accomplished during the 2006-2007 academic year and reflects on the initiatives that form the foundation of the WiSE program.
WiSE Leadership

A critical aspect of the success of WiSE is the direct involvement of men and women faculty, at all career levels and from both the USC College and the Viterbi School of Engineering, in planning, evaluating, and guiding the program’s development. Faculty serve on all three of the program oversight committees including the WiSE Advisory Board, the USC College WiSE Committee, the USC Viterbi School WiSE Committee, as well as in the Provost’s WiSE Program Office.

Advisory Board

In 2006-2007, the Advisory Board met twice during the Fall semester (10/10/06 and 11/21/06) and once during the Spring semester (4/13/07) to review programs, progress, and investigate new program directions.

The members of the WiSE Advisory Board include:

- Hanna Reisler, Chair
  Professor, Department of Chemistry
  USC College of Letters, Arts and Sciences

- Jean Morrison (Ex-officio)
  Professor, Department of Earth Sciences
  USC College of Letters, Arts and Sciences

- David D’Argenio
  Professor, Department of Biomedical Engineering
  USC Viterbi School of Engineering

- Suzanne Edmands
  Associate Professor, Department of Biological Sciences (Marine)
  USC College of Letters, Arts and Sciences

- Leana Golubchik
  Associate Professor, Department of Computer Science
  USC Viterbi School of Engineering

- Susan Montgomery
  Professor, Department of Mathematics
  USC College of Letters, Arts and Sciences

- Mark Redekopp
  Senior Lecturer, Ming Hsieh Department of Electrical Engineering
  USC Viterbi School of Engineering

- Paul Rosenbloom
  Professor, Department of Computer Science
  Information Sciences Institute, USC Viterbi School of Engineering
Geraldine Peters  
Research Professor, Department of Physics & Astronomy  
USC College of Letters, Arts and Sciences

Katherine Shing  
Associate Professor, Mork Family Department of Chemical Eng. & Materials Science  
USC Viterbi School of Engineering

School WiSE Committees

Two additional committees, one in each school, serve as advisors to the program by reviewing the applications, making recommendations for funding, and giving feedback on issues specific to each school. These committees include:

USC College WiSE Committee

Judith Hirsch, Chair  
Associate Professor, Department of Biological Sciences (Neuroscience)

Clifford Johnson  
Professor, Department of Physics & Astronomy

Anna Krylov  
Associate Professor, Department of Chemistry

USC Viterbi School of Engineering WiSE Committee

Urbashi Mitra, Chair  
Professor, Ming Hsieh Department of Electrical Engineering

Ramesh Govindan  
Professor, Department of Computer Science

Maria Yang  
Assistant Professor, Daniel J. Epstein Department of Industrial and Systems Engineering

Ellis Meng  
Assistant Professor, Department of Biomedical Engineering

With the guidance of its diverse committees, WiSE programs have grown and evolved in response to changing needs. Continued evaluation of the success and utility of programs have helped to keep them relevant and effective.

Provost’s WiSE Program Office

Jean Morrison, Professor of Earth Sciences in the USC College and Vice Provost for Graduate Programs continues to serve as Director of the WiSE Program. Morrison was appointed as the WiSE Program Director in 2002.

Assisting with program development and management and the coordination of committees, Nicole Hawkes assumed the role of WiSE Program Manager on 8/7/06.
New WiSE Faculty

A list of all current WiSE Faculty (06-07) can be found in Appendix 2. The following are new WiSE Faculty hired in 06-07:

- Jia Grace Lu (Ph.D. 1997, Harvard University)
  Associate Professor of Physics

- Elena Pierpaoli (Ph.D. 1998, SISSA-ISAS)
  Associate Professor of Physics

- Liang Chen (Ph.D. 2006, Yale University)
  Assistant Professor of Biological Sciences (Molecular and Computational Biology)

- Xuelin Wu (Ph.D. 2000, New York University)
  Assistant Professor of Biological Sciences (Molecular and Computational Biology)

- Katrina Edwards (Ph.D. 1999, University of Wisconsin)
  Associate Professor of Biological Sciences (Marine Environmental Biology)

- Karla Heidelberg (Ph.D. 1988, University of Maryland, College Park)
  Assistant Professor of Biological Sciences (Marine Environmental Biology)

WiSE Program Awards in 2006-2007

Financial awards by program:

<table>
<thead>
<tr>
<th>Program</th>
<th># Awards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty Recruitment / Faculty Retention</td>
<td>9</td>
</tr>
<tr>
<td>Major Support for Current Faculty</td>
<td>2</td>
</tr>
<tr>
<td>Lloyd Armstrong, Jr. Chair</td>
<td>1</td>
</tr>
<tr>
<td>Supplemental Faculty Support</td>
<td>14</td>
</tr>
<tr>
<td>Postdoctoral Support</td>
<td>5</td>
</tr>
<tr>
<td>Graduate Top-Off</td>
<td>5</td>
</tr>
<tr>
<td>Merit Fellowship for Current Ph.D.</td>
<td>4</td>
</tr>
<tr>
<td>Travel Grants</td>
<td>46</td>
</tr>
<tr>
<td>Undergraduate Research Grants</td>
<td>24</td>
</tr>
<tr>
<td>Child Care Subsidies</td>
<td>5</td>
</tr>
<tr>
<td>Support for Faculty Pregnancy / Childbirth / Adoption</td>
<td>0</td>
</tr>
<tr>
<td>Support for Ph.D. and Postdoc Pregnancy / Childbirth / Adoption</td>
<td>1</td>
</tr>
</tbody>
</table>
New Program Development

On October 18 2006, WiSE formally launched two new programs for faculty, graduate students and postdoctoral scholars to support and accommodate pregnancy, childbirth and adoption. Detailed descriptions of the programs and procedures for implementation were distributed to Deans, Department Chairs and Faculty in the USC College and the Viterbi School of Engineering and can be found on the WiSE website. Brief summaries of the programs follow:

Support for Faculty Pregnancy, Childbirth and Adoption
Faculty in S&E who give birth or adopt a child can face unique challenges. The existence of the WiSE Program and the networking and support that are now available to WiSE faculty at USC, present a special opportunity to address the situation and work to overcome many of the obstacles that may potentially adversely affect the careers of WiSE faculty with families. WiSE will provide guidance to help the faculty member navigate negotiations with his/her chair or dean, and may when necessary contribute to the cost of hiring a lecturer to teach the course(s) of the WiSE faculty member for the period of the agreed modified duties, and/or give priority funding through the WiSE Major Support for Faculty Program during the first two years after the birth or adoption of a child to offset grants/contracts negatively affected by childbirth or adoption.

Fellowship to Accommodate Pregnancy, Childbirth and Adoption for Ph.D. Students and Postdoctoral Scholars
One of the most important issues affecting the increase in representation of women in S&E is the balance of career and family obligations. For young scientists and engineers, this balance primarily involves childbirth, adoption, nursing and infant care. Specific to S&E is the need to avoid potentially hazardous situations during pregnancy and nursing such as exposure to chemicals, electromagnetic radiation, or other possible damaging settings. The WiSE Program developed this fellowship support program to help Ph.D. students or postdoctoral scholars and their advisors solve any conflicts that arise between the constraints of pregnancy, childbirth, adoption, nursing and infant care and the continuing work of the research program.

Doctoral students with 50% time funding may apply for a pregnancy or adoption support fellowship of up to one semester of a 50% time university stipend at the minimum stipend rate to be used during the time of pregnancy and/or in the first year after childbirth or adoption. Postdoctoral scholars may apply to the WiSE Program for a pregnancy or adoption support fellowship in the amount of up to 50% of the 12 month salary for one semester, provided that the mentor pays the other half. The exact amount of financial support will depend upon the postdoctoral scholar’s eligibility for disability benefits.

These programs will be applied in the initial form for a period of five years. The programs will then be revised to include modifications resulting from experience gained during the trial period. Despite the early stages of implementation, informal feedback from potential applicants has demonstrated that the intended message of this program to young scientists and engineers has been communicated, and that the academic environment is perceived as family-friendly.
In addition to its formal suite of grantmaking programs, WiSE awarded several discretionary grants to support activities that work toward the goal of increasing the representation of women in science and engineering. These include:

<table>
<thead>
<tr>
<th>Group</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of Computer Science (Viterbi School of Engineering)</td>
<td>To share expenses for six undergraduate CS women to attend the “Grace Murray Hopper Celebration of Women in Computing” event in San Diego.</td>
</tr>
<tr>
<td>WiSE Postdoctoral Association</td>
<td>To seed the formation of a networking and professional development group for women postdoctoral scholars in science and engineering fields.</td>
</tr>
<tr>
<td>Graduate Women in Biology</td>
<td>To seed the formation of a networking and professional development group for women graduate students in the field of biology.</td>
</tr>
<tr>
<td>Women in Physics</td>
<td>To share expenses for the Second Annual Conference for Undergraduate Women in Physics at USC.</td>
</tr>
<tr>
<td>Women in Mathematics</td>
<td>To support the annual activities of the networking and professional development group among graduate and undergraduate women in math.</td>
</tr>
<tr>
<td>Graduate Women in Chemistry</td>
<td>To support the activities of the networking and professional development group for women graduate students in the field of chemistry.</td>
</tr>
</tbody>
</table>

**WiSE Activities 2006-2007**

**Lectures**

In accordance with the 2006 recommendations of the WiSE Advisory Board for strategies to improve the institutional climate, WiSE hosted two distinguished lecturers to increase awareness and visibility of gender equity issues in science and engineering (Appendices 3 and 4):

1. **Mary Ann Mason**
   - Dean of Graduate Programs and Professor in the School of Social Work
   - University of California, Berkeley
   - "Do Babies Matter? The Effect of Family Formation on the Careers of Men and Women Scientists"
   - Wednesday, September 20, 2006

2. **Geraldine Richmond**
   - Richard M. and Patricia H. Noyes Professor
   - Department of Chemistry and Materials Science Institute
   - University of Oregon
   - “Battling Biases and Barriers: Necessary Steps our Academic Institutions Must Take to Assure a Strong Science and Engineering Workforce"
   - Thursday, March 1, 2007

Lectures were well-attended by faculty, students, staff, deans, and department chairs. Both distinguished lecturers met with WiSE Faculty and Richmond held a series of well-attended meetings with graduate students and postdoctoral scholars. The format of these meetings was so
successful that it will continue in schedules of future guests, who will be given ample opportunities to interact with students and faculty in an informal setting.

Additional opportunities for WiSE faculty and students to interact with distinguished guests of the University were provided during the visits of the following:

1. Evelyn Hu  
   Professor, Department of Electrical and Computer Engineering  
   Director California NanoSystems Institute  
   University of California Santa Barbara  
   April 4, 2007

2. Carol Bartz  
   Executive Chairman of the Board  
   Autodesk, Inc.  
   April 23, 2007

3. Mildred Dresselhaus  
   Institute Professor and Professor of Physics and Electrical Engineering  
   Massachusetts Institute of Technology  
   April 25, 2007

Recruitment

Also in response to the recommendations outlined by the WiSE Advisory Board, a “toolkit” of resources for hiring diversity was developed for department chairs and search committees. The toolkit outlines recommended strategies for broadening the scope of searches for outstanding diversity candidates. It was distributed through WiSE meetings with department chairs and search committee representatives in both the USC College and Viterbi School of Engineering. (Appendix 5)

As part of its plan to assist in the recruitment of official candidates in science and engineering, WiSE leadership offered to meet with women faculty candidates both to transmit information about the WiSE program and resources and to provide opportunities for candidates to ask questions about USC and work-family issues that they might not ordinarily feel comfortable discussing as part of their formal interview process. Departments took full advantage of this offer and Jean Morrison or Hanna Reisler met with 35 faculty candidates over the course of 2006-2007.
The following is a breakdown of candidates who met with WiSE representatives as part of their campus interview by school and department:

**USC College**

<table>
<thead>
<tr>
<th>Department</th>
<th>Candidates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological Sciences</td>
<td>0</td>
</tr>
<tr>
<td>Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>Earth Science</td>
<td>5</td>
</tr>
<tr>
<td>Kinesiology</td>
<td>0</td>
</tr>
<tr>
<td>Mathematics</td>
<td>1</td>
</tr>
<tr>
<td>Physics &amp; Astronomy</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>11</strong></td>
</tr>
</tbody>
</table>

**Viterbi School**

<table>
<thead>
<tr>
<th>Department</th>
<th>Candidates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerospace &amp; Mech.</td>
<td>4</td>
</tr>
<tr>
<td>Astronautics &amp; Space Technology</td>
<td>1</td>
</tr>
<tr>
<td>Biomedical</td>
<td>0</td>
</tr>
<tr>
<td>Chemical &amp; Materials Science</td>
<td>2</td>
</tr>
<tr>
<td>Civil &amp; Environmental</td>
<td>4</td>
</tr>
<tr>
<td>Computer Science</td>
<td>4</td>
</tr>
<tr>
<td>Electrical</td>
<td>6</td>
</tr>
<tr>
<td>Industrial &amp; Systems</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>24</strong></td>
</tr>
</tbody>
</table>

**Off-Campus Visibility**

As part of the effort to increase visibility of the WiSE program both on the USC Campus and nationally, WiSE representatives attended conferences, workshops and events to broadly share information about the WiSE program with the larger public. These events included:

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/4/06</td>
<td>ACE (American Council on Education) Network Southern California Fall Meeting Workshop at UCLA</td>
<td>Nicole Hawkes leader of a roundtable discussion on the USC WiSE Program and women in science and engineering</td>
</tr>
<tr>
<td>1/18/07</td>
<td>Luncheon for women at ISI and ICT in Marina del Rey</td>
<td>Nicole Hawkes, Jean Morrison, Judith Hirsch and Elaine Chew hosted presentation on WiSE and programs.</td>
</tr>
<tr>
<td>2/2/07</td>
<td>Marlborough School Women in Science seminar</td>
<td>Jean Morrison and Jill McNitt-Gray panelists and Nicole Hawkes participant.</td>
</tr>
<tr>
<td>2/16/07-2/17/07</td>
<td>AAAS (American Association for the Advancement of Science) Annual Meeting, San Francisco CA</td>
<td>Jean Morrison and Nicole Hawkes participants</td>
</tr>
<tr>
<td>3/24/07</td>
<td>Sally Ride Science Festival for Girls at Cal Tech in Pasadena</td>
<td>Blithe Casterline and Meghan Klaric (Ph.D. students in Chemistry) presented interactive demonstrations.</td>
</tr>
<tr>
<td>6/10/07 - 6/13/07</td>
<td>WEPAN (Women in Engineering Programs and Advocates Network) Annual Meeting, Orlando FL</td>
<td>Nicole Hawkes participant</td>
</tr>
</tbody>
</table>
**Program Promotion**

The WiSE Program received national attention through a *Chronicle of Higher Education* article, “At U. of Southern California, a Support Network Helps Women in Science and Engineering” (September 29, 2006 / Volume 53, Issue 6, Page B8). The article included commentary from a number of WiSE faculty: Jean Morrison, Hanna Reisler, Susan Forsburg, Amy Rechenmacher, Samantha Butler, Maria Yang and Suzanne Edmands (Appendix 1).

To coincide with the publication of the *Chronicle* article, a simultaneous launch of an enhanced WiSE website was planned. The website featured a new organizational plan, enhanced graphics, additional resources, and an online application submission feature that streamlines the management of grants. The website is continually updated with information about events, news, and opportunities for the WiSE community. It can be found at: [www.usc.edu/wise](http://www.usc.edu/wise) (also see Appendix 6).

In addition, an online Wiki site for internal use of the WiSE Faculty Networking group was implemented. Through the Wiki, faculty share ideas, information, and resources. Links to articles on the topic of women in science and engineering predominate.

In association with the website enhancements, a professional photographer was hired to capture images of WiSE faculty and students in laboratory and classroom settings. The photographs have found a number of promotional applications from a banner (used at the Sally Ride Festival), to the website, to power point presentations, to a pair of brochures outlining WiSE Programs.

While the WiSE website contains the most thorough information about programs and application guidelines the two new brochures created in 2006-2007 provide a tangible and widely disbursable method to publicize WiSE programs. The first brochure outlines the WiSE Undergraduate Research Fellowship program and profiles the experience of one recipient (Andrea Cheung, Chemical Engineering, Class of 2007). The second outlines the variety of programs that support Ph.D. students and Postdoctoral scholars giving basic information on WiSE fellowships, childcare subsidies, and travel grants. Brochures are also available on the WiSE website as pdf file downloads (Appendices 7 and 8).

A formal “kit” of reference information on WiSE including news articles, brochures, program descriptions, faculty lists was developed to assist in easily distributing information about the breadth of the program. These kits have been disbursed to faculty candidates, distinguished visitors, and perspective visitors.

The additional participation of WiSE representatives at campus and off-campus events and conferences (outlined under “Activities”) have also contributed to enhanced program promotion.

**WiSE Faculty Awards and Distinctions**

In addition to the aforementioned *Chronicle* article, other articles featuring WiSE faculty have been assembled in a chronological archive to chart their outstanding accomplishments. As outlined in Provost’s recently announced initiative on Faculty Recognition (3/19/07), bringing the achievements of USC faculty to the “attention of wider circles will support the ongoing recruitment by all departments of additional excellent faculty and graduate students.” It is our
hope that highlighting the outstanding work of WiSE faculty at USC will contribute to our recruitment goals.

Accomplishments by WiSE Faculty in 2006-2007 are listed below:

<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>Accomplishment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yolanda Gil</td>
<td>ISI / Dept. of Computer Science</td>
<td>Appointment to the Advisory Committee of the Computer and Information Sciences and Engineering Directorate of the NSF. (8/2006)</td>
</tr>
<tr>
<td>Jean Morrison</td>
<td>Earth Sciences / Office of the Provost</td>
<td>Promotion to Vice Provost of Graduate Studies (10/2006)</td>
</tr>
<tr>
<td>Urbashi Mitra</td>
<td>Electrical Engineering</td>
<td>Elected a Fellow of the Institute of Electrical and Electronics Engineers (1/2007)</td>
</tr>
<tr>
<td>Susan Forsburg</td>
<td>Molecular and Computational Biology</td>
<td>Named a 2007 Fellow of the Association for Women in Science and Engineering (AWIS) (2/2007)</td>
</tr>
<tr>
<td>Hanna Reisler</td>
<td>Chemistry / WiSE Advisory Board Chair</td>
<td>Named “Remarkable Woman” by USC The Office of Campus Activities and the Women's Student Assembly (3/2007)</td>
</tr>
<tr>
<td>Eva Kanso</td>
<td>Aerospace and Mechanical Engineering</td>
<td>Received Faculty Early Career Development (CAREER) award from the NSF (4/2007).</td>
</tr>
<tr>
<td>Hanna Reisler</td>
<td>Chemistry / WiSE Advisory Board Chair</td>
<td>Recipient of USC-Mellon Mentoring Award for “Faculty Mentoring Faculty” (4/2007)</td>
</tr>
<tr>
<td>Elaine Chew</td>
<td>Industrial &amp; Systems / Electrical Engineering</td>
<td>Promotion to Associate Professor with Tenure (4/2007)</td>
</tr>
<tr>
<td>Anna Krylov</td>
<td>Chemistry</td>
<td>Recipient of Agnes Fay Morgan Research Award by the Iota Sigma Pi National Honor Society for Women in Chemistry</td>
</tr>
</tbody>
</table>
Appendix
At U. of Southern California, a Support Network Helps Women in Science and Engineering

By ALVIN P. SANOFF

When Jean Morrison gave birth to her first child 11 years ago, there were no science colleagues at the University of Southern California with whom she felt comfortable discussing the challenges of combining motherhood and a career as a geochemist. She feared that taking time off would be viewed negatively by her male colleagues on the faculty and could imperil her ability to win research grants. So she continued with a full teaching load, maintained her service obligations, and persisted with her research.

It was an exhausting and unsatisfying experience. "I mucked through it myself and made a lot of mistakes," she recalls.

Today female faculty members in USC's science and engineering programs have more support and more options, thanks to a program called Women in Science and Engineering, which Ms. Morrison directs. The six-year-old program, known as WISE, is the product of a $20-million gift by an anonymous donor. The endowment generates about $1-million annually. The money is used primarily to help hire more female professors in the sciences and engineering, but WISE also devotes substantial resources to helping women at all stages of their academic careers, from undergraduates on up.

WISE offers research grants of $3,000 to about 15 to 20 female undergraduates annually. It helps pay the salaries of about six postdoctoral students. It provides child-care subsidies for graduate students and faculty members who use the university's child-care center. And that is just a partial list of its programs.

The program's breadth and substantial resources set it apart, say those familiar with similar programs at other institutions. "It is a great program," says Donna J. Nelson, associate professor of chemistry at the University of Oklahoma, who has studied the role of women faculty members in the sciences and engineering at research universities. "WISE is doing the right thing by spreading resources among all levels."

Since the program began in 2000, USC has more than doubled the number of women faculty members in the sciences and engineering — from 15 to 35. The sharpest jump in hiring has occurred at its Viterbi School of Engineering, where the number of women
faculty members has climbed from three to 12 out of a total faculty of about 160. All but one of the school's eight departments now has at least one female member. "When we started, six of the departments did not have women," says Hanna Reisler, a chemistry professor who is chairwoman of WISE's advisory board.

While the number of women in the sciences and engineering remains modest, USC is proud of its results, considering the competition for promising young scholars. In 2004, according to the National Opinion Research Center's annual survey of doctorates, women earned 1,598 doctorates in the physical sciences — about one-quarter of those awarded — and slightly more than 1,000 in engineering, or 18 percent of those awarded. That's a vast improvement from 30 years earlier, when women earned only 8 percent of doctorates in the physical sciences and 1 percent of those in engineering.

But many of today's newly minted Ph.D.'s prefer private industry to the academy. "Women tend to self-select out of faculty positions," says Susan L. Forsburg, professor of biological sciences at USC. "If they see that the life of a professor is incompatible with other values, they won't pursue that path." Ms. Forsburg says that in many respects industry is more open to women than higher education.

Part of the problem is that some male faculty members in the sciences and engineering still hold negative stereotypes of women. "I think a lot of men view women as not as aggressive and feel they won't generate overhead funds, won't publish as much," and won't enhance the university's reputation sufficiently, says Amy L. Rechenmacher, assistant professor of civil and environmental engineering at USC. She says that after a search committee she served on interviewed four finalists, including one woman, a male member of the panel said the group needed to be cautious about recommending the woman because she had a family. "I told him that was inappropriate," she says. "All the candidates had families."

"Raising awareness and shattering age-old stereotypes takes an organized effort like the WISE program," she says.

In part because of programs like WISE, attitudes in academe are gradually changing. As a result, talented female scholars in the sciences and engineering are in demand. "There is a market for talent out there, and you have to be prepared to bid for that talent," says James E. Moore II, chair of USC's department of industrial and systems engineering. "USC has two cards to play: its reputation and the additional resources from WISE that it can bundle with university resources."

Thanks to WISE, USC is able to offer employment packages that are more generous than the university could otherwise provide. "We ask candidates what would it take for them to come to USC, and we help the dean of the school involved come up with that," says Ms. Morrison, who also serves as associate vice provost for graduate programs. WISE provides additional money beyond salaries — for lab equipment and travel, for example — "and that is a strong incentive for a dean to encourage departments to hire outstanding women," she says.
Samantha J. Butler, assistant professor of biological sciences, says the university's ability to make a better offer than another institution played a key role in her decision to come to USC. "They paid for hundreds of thousands of dollars worth of equipment," she says.

Maria C. Yang, an assistant professor in industrial and systems engineering, says that when she visited USC to interview, she met with Ms. Morrison and Ms. Reisler. "Here were two people not even in engineering who were interested in telling me about programs for women faculty," she says. "I had never experienced this before."

Ms. Yang became pregnant shortly after arriving at USC. But unlike Ms. Morrison several years earlier, Ms. Yang was able to consult with numerous female colleagues. As a result, instead of trying to do it all, she chose to take a semester off from teaching but continued with her research. "In engineering, having a child if you are untenured can be risky," says Ms. Yang. "I was concerned about how male colleagues would view it. This was new territory for engineering since I was the first untenured woman in the school to ask for maternity leave."

The WISE program is trying to change the procedure for obtaining maternity leave. Currently, faculty members must first gain approval from their department chair. "When it comes to covering teaching responsibilities, even the most sensitive chair is going to be conflicted," says Suzanne Edmands, associate professor of biological sciences. WISE would like faculty members to be able to bypass their chairs and go directly to their deans, who would have a less personal stake in the decision.

When Ms. Edmands adopted a child, she didn't take time off. Instead, after consulting with her female colleagues, she asked for and received a one-year tenure extension.

One of WISE's most important activities is a monthly brown-bag lunch for female science-and-engineering faculty members. That provides an opportunity for women to get to know one another and form support groups with colleagues in other scientific disciplines. "Even if you are the only woman in your department, you don't feel isolated," says Ms. Reisler.

Speaking of her experiences at another institution, Ms. Forsburg says, "When you are the only woman in a room, you can say something, and they don't hear you. But at the lunches, we get to be in a room with people who understand what we are saying and what our experiences are, and who try to improve the situation for everyone."

Ms. Rechenmacher, who was on the faculty at the Johns Hopkins University before coming to USC, says she felt largely on her own at Hopkins. But at USC, the lunches have enabled her to meet a group of people who can answer any questions or help her find someone who can. "Academia is a dog-eat-dog world," she says. "If you are given wrong advice, you can go in the wrong direction, and it can cost you tenure. It is nice to have people whom you can ask, 'What do I do?'"
Despite the WISE program's success, its leaders are not ready to declare victory. Ms. Reisler wants to change the institutional culture so that hiring women becomes an important measure of a department's success.

WISE has met its initial target of doubling the number of female faculty members in the sciences and engineering, and now the program has a new goal. Ms. Morrison would like to see the number of women rise to 60 in the next five years. She also wants to assure that younger faculty members are promoted and tenured, and that USC does not lose women to other institutions.

That is in keeping with WISE's long-term approach. "We never felt we had to go for the quick fix," she says. "If there were a quick fix, everybody would have done it."

http://chronicle.com
Section: Diversity in Academic Careers
Volume 53, Issue 6, Page B8
Appendix 2: Current WiSE Faculty 06-07

**Tenured and Tenure-Track Faculty**

**The USC College of Letters, Arts and Sciences**

**Life Sciences**

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Sarah Bottjer</td>
<td>Professor</td>
<td>Biological Sciences (Neuro)</td>
</tr>
<tr>
<td>Susan Forsburg</td>
<td>Professor</td>
<td>Biological Sciences (MCB)</td>
</tr>
<tr>
<td>Miriam Susskind</td>
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<td>Suzanne Edmands</td>
<td>Associate Professor</td>
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</tr>
<tr>
<td>Katrina Edwards</td>
<td>Associate Professor</td>
<td>Biological Sciences (Marine)</td>
</tr>
<tr>
<td>Judith Hirsch</td>
<td>Associate Professor</td>
<td>Biological Sciences (Neuro)</td>
</tr>
<tr>
<td>Emily Liman</td>
<td>Associate Professor</td>
<td>Biological Sciences (Neuro)</td>
</tr>
<tr>
<td>Michelle Arbeitman</td>
<td>Assistant Professor</td>
<td>Biological Sciences (MCB)</td>
</tr>
<tr>
<td>Samantha Butler</td>
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</tr>
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<td>Liang Chen</td>
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</tr>
<tr>
<td>Karla Heidelberg</td>
<td>Assistant Professor</td>
<td>Biological Sciences (Marine)</td>
</tr>
<tr>
<td>Xuelin Wu</td>
<td>Assistant Professor</td>
<td>Biological Sciences (MCB)</td>
</tr>
<tr>
<td>Xianghong Zhou</td>
<td>Assistant Professor</td>
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<tr>
<td>Wiebke Ziebis</td>
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<td>Jill McNitt-Gray</td>
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<tr>
<td>Lorraine Turcotte</td>
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**Physical Sciences / Mathematics**

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<tr>
<td>Hanna Reisler</td>
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</tr>
<tr>
<td>Anna Krylov</td>
<td>Associate Professor</td>
<td>Chemistry</td>
</tr>
<tr>
<td>Amy Barrios</td>
<td>Assistant Professor</td>
<td>Chemistry</td>
</tr>
<tr>
<td>Jean Morrison</td>
<td>Professor</td>
<td>Earth Science</td>
</tr>
<tr>
<td>Susan Montgomery</td>
<td>Professor</td>
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<tr>
<td>Jia Grace Lu</td>
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<td>Physics &amp; Astronomy</td>
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<tr>
<td>Elena Pierpaoli</td>
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**The USC Viterbi School of Engineering**

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<tbody>
<tr>
<td>Alice Parker</td>
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<tr>
<td>Urbashi Mitra</td>
<td>Professor</td>
<td>Electrical Engineering Systems</td>
</tr>
<tr>
<td>Katherine Shing</td>
<td>Associate Professor</td>
<td>Chemical Engineering &amp; Material Science</td>
</tr>
<tr>
<td>Maja Mataric</td>
<td>Professor</td>
<td>Computer Science</td>
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<tr>
<td>Leana Golubchik</td>
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</tr>
<tr>
<td>Banu Ozden</td>
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<td>Computer Science</td>
</tr>
<tr>
<td>Karen Liu</td>
<td>Assistant Professor</td>
<td>Computer Science</td>
</tr>
<tr>
<td>Elaine Chew</td>
<td>Associate Professor</td>
<td>Industrial and Systems Engineering</td>
</tr>
<tr>
<td>Maria Yang</td>
<td>Assistant Professor</td>
<td>Industrial and Systems Engineering</td>
</tr>
<tr>
<td>Name</td>
<td>Position</td>
<td>Department</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------------------------------</td>
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</tr>
<tr>
<td>Eva Kanso</td>
<td>Assistant Professor</td>
<td>Aerospace and Mechanical Engineering</td>
</tr>
<tr>
<td>Amy Rechenmacher</td>
<td>Assistant Professor</td>
<td>Civil and Environmental Engineering</td>
</tr>
<tr>
<td>Ellis Meng</td>
<td>Assistant Professor</td>
<td>Biomedical Engineering</td>
</tr>
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**Non Tenure-Track Faculty (WiSE Participants)**

**The USC College of Letters, Arts and Sciences**

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<th>Department</th>
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<tr>
<td>Linda Duguay</td>
<td>Research Associate Professor</td>
<td>Biological Sciences (Marine)</td>
</tr>
<tr>
<td>Myrna Jacobson</td>
<td>Research Assistant Professor</td>
<td>Biological Sciences (Marine)</td>
</tr>
<tr>
<td>Cymra Haskell</td>
<td>Lecturer</td>
<td>Mathematics</td>
</tr>
<tr>
<td>Florence Lin</td>
<td>Lecturer</td>
<td>Mathematics</td>
</tr>
<tr>
<td>Elena Verona</td>
<td>Lecturer</td>
<td>Mathematics</td>
</tr>
<tr>
<td>Geraldine Peters</td>
<td>Research Professor</td>
<td>Space Sciences Center</td>
</tr>
<tr>
<td>Neda Katz</td>
<td>Lecturer</td>
<td>Physics</td>
</tr>
<tr>
<td>Marcella Raney</td>
<td>Lecturer</td>
<td>Kinesiology</td>
</tr>
<tr>
<td>Nayuta Yamashita</td>
<td>Assistant Professor</td>
<td>Anthropology (MCB / Neuro.)</td>
</tr>
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</table>

**Viterbi School of Engineering**

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Ann Chervenak</td>
<td>Research Assistant Professor</td>
<td>Computer Science / ISI</td>
</tr>
<tr>
<td>Carole Beal</td>
<td>Research Professor</td>
<td>Information Sciences Institute</td>
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<td>Claire Bono</td>
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<td>Computer Science / ISI</td>
</tr>
<tr>
<td>Ewa Deelman</td>
<td>Research Assistant Professor</td>
<td>Computer Science / ISI</td>
</tr>
<tr>
<td>Hanh Dam Le-Griffin</td>
<td>Research Assistant Professor</td>
<td>Civil &amp; Environmental Engineering</td>
</tr>
<tr>
<td>Jennifer Swift</td>
<td>Research Assistant Professor</td>
<td>Civil &amp; Environmental Engineering</td>
</tr>
<tr>
<td>Jihie Kim</td>
<td>Research Assistant Professor</td>
<td>Computer Science / ISI</td>
</tr>
<tr>
<td>Kristina Lerman</td>
<td>Research Assistant Professor</td>
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<td>Ladan Gharai</td>
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<td>ISI</td>
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<td>Maria Todorovska</td>
<td>Research Professor</td>
<td>Civil &amp; Environmental Engineering</td>
</tr>
<tr>
<td>Mary Hall</td>
<td>Research Associate Professor</td>
<td>Computer Science / ISI</td>
</tr>
<tr>
<td>Wee Ling Wong</td>
<td>Research Assistant Professor</td>
<td>Biomedical Engineering</td>
</tr>
<tr>
<td>Yolanda Gil</td>
<td>Research Associate Professor</td>
<td>Computer Science / ISI</td>
</tr>
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</table>
The Women in Science and Engineering (WiSE) Program presents

**Do Babies Matter?**
*The Effect of Family Formation on the Careers of Men and Women Scientists*

**Mary Ann Mason**
Dean of the Graduate Division and Professor, Graduate School of Social Welfare
University of California, Berkeley

**Wednesday, September 20, 2006**  
3:00 p.m. – 4:00 p.m.  
**Hedco Neuroscience Auditorium (HNB 100)**  
Reception to follow in HNB 107

Please call the WiSE Program Office at (213) 821-4400 for more information
The USC Women in Science and Engineering Program

wise
presents

Battling Biases and Barriers: Necessary Steps our Academic Institutions Must Take to Assure a Strong Science and Engineering Workforce

Dr. Geraldine Richmond
Richard M. and Patricia H. Noyes Professor
Dept. of Chemistry & Materials Science Institute
University of Oregon

Thursday, March 1, 2007
2:00 p.m. – 3:00 p.m.
Ahmanson Center (ACB 238)
Reception to follow

Contact WiSE at (213) 821-4400 for more information
Or visit www.usc.edu/wise/events/geri_richmond.html
Appendix 5: USC Search Committee “Toolkit”

Increasing Faculty Diversity:
Tips to Chairs and Search Committees

Developed by the USC WiSE Program

The search for a new faculty member is both routine and unique. The procedures are the same no matter what position or department: advertise, review applications, interview, and hire. However, each position has specific qualities, and departments will define their own selection criteria and candidate qualifications.

This document identifies the major components of the search process from the perspective of increasing faculty diversity, and offers suggestions on how departments can modify the process to reflect their special hiring needs, while at the same time strive to increase diversity. These search tips for department chairs and search committees are adapted from those developed at other universities by NSF ADVANCE programs on institutional transformation and conform to search procedures at USC.

As a first step to increase diversity, think beyond the immediate search steps as you develop your procedures. Just as your department is trying to find the best candidate, applicants are judging whether they want to come to USC and build their careers here.

Before the Search

- Create a search committee that is enthusiastic and genuinely committed to faculty diversity. Include individuals with different expertise, and at least one senior faculty who is from an underrepresented group.
- Include diversity goals in the departmental strategic plan, as well as in its the mission statement.
- Distribute a departmental statement outlining meaningful steps to be taken to achieve greater diversity among the faculty, drawing on your department’s appraisal of diversity needs.
- Critically analyze the job description and advertisement, making sure that they are geared towards inclusiveness.
- Clearly articulate campus rationale for support of faculty racial and ethnic diversity by making explicit the connection between faculty diversity, excellence and educational goals.

The Search Committee

- Make sure the committee is diverse, even if this broadens the scope of the committee beyond the professional goals set by the search.
- Identify key members who will serve as advocates for women and minorities.
- Ask dean, chair, and WiSE committee members to meet with the search committee at the beginning of the process to reiterate the importance of increased diversity and provide guidance on increasing the diversity of the applicant pool and minimizing subconscious biases in selecting candidates.
• Identify ways in which a diverse pool of candidates will be attracted.

Planning the Search

• Meet with the appropriate faculty to establish specific hiring goals. Determine how much you are willing to broaden the scope of the search for a candidate from an underrepresented group. Develop a clear position description that includes the possibility of a broadened scope.
• Develop a timeline for recruiting and interviewing that takes into account the reality that excellent diversity candidates are sought after by many schools and their interview calendar fills up early.
• Determine and document how the committee plans to actively recruit women and minorities. Examples include:
  (i) Develop a process for committee members or departmental faculty to make personal contact with potential candidates at professional meetings and conferences;
  (ii) Utilize personal and professional networks, contacts, and recommendations to seek leads to potential minority candidates. Do not call only faculty at top-ranked universities. Some excellent diversity candidates get their education at other universities, because they are more often restricted by family or financial considerations; and
  (iii) Advertise what USC is doing to foster the careers and women and minorities, and encourage candidates to apply to USC.
• Be clear on what the role of the committee is. In some cases the committee is authorized only to recommend the final candidates to be invited for interviews. In others, the committee identifies the candidates, coordinates the on-campus interview process and makes a hiring recommendation to the appropriate chair or dean. Make sure that the chair and the faculty who are designated to look at diversity candidates look at the entire pool of highly ranked candidates to help in short-listing diversity candidates.
• Having diversity in mind from the start will minimize biases in selecting candidates for the short list. Have each member of the committee read an article about hidden biases that influence decision making subconsciously. Educate the search committee and provide opportunities for discussion on diversity and equity issues, including hiring myths, stereotypes, and biases.
• Incorporate recruitment networking into professional conference attendance by department faculty.

Evaluating the Applicant Pool

• Include all committee members in the evaluation process of the entire pool.
• Develop a written list of selection criteria and a process for rating candidate applications. Research shows that having a written list of criteria helps minimize subconscious biases. Reach committee consensus on how different qualifications will be weighted. Make sure that the criteria include diversity and minimize the role of prestige of institution and adviser in selecting candidates. The key is to look at the credentials of each candidate without bias.
• Identify the top 25% of the candidate pool, and review how well each applicants' experience and commitment to diversity can contribute to the institution's diversity goal or to increasing the representation of women in the department.
Keep records on the applicant pool and how it was short listed. These records can be shown to deans, department chairs, future search committees, etc. This will create a departmental culture that emphasizes diversity with excellence.

**Interviewing the Finalists**

- Women and minority candidates often perceive the interview differently than other candidates. Make sure these candidates are interviewed by faculty who are sensitive to their perspective. Include women and minority among those seen by the diversity candidate, even if they are not from your department. Consult with the WiSE program director, your dean or the provost's office if you need help in identifying such faculty. Offer to make available a person of similar background, interests, ethnicity, or gender to give their perspectives on the campus and city climate.
- Read on how different types of candidates view differently the interview and offer. this will help bring up issues that would not be normally emphasized. These may include networking groups on campus, child care facilities, family friendly policies, etc.
- Make sure each member of the search committee is familiar with policies of family leave, tenure clock, etc., which affect more often diversity candidates.
- Offer all candidates information on who to contact to discuss special requirements or circumstances, such as the need for partner job assistance or disability accommodation, if the candidate raises such issues.

**Concluding the Search**

- Solicit written comments from all those that met with or interviewed candidates, including those who were not from your department. A rating form can be developed for this purpose that will include desired area, benefit of increased diversity, etc.
- If a diversity candidate rises to the top, inform your dean who will contact the WiSE program and the provost's office to generate an attractive offer.
- After the selection, stay in frequent contact with your top choice and the first alternate. Find out what other offers they have, so that your offer stays competitive at all times.

**Resources**

"The Department Chair's Role in Developing New Faculty into Teachers and Scholars" (Paperback), by Estela Mara Bensimon, Kelly Ward, Karla Sanders, Anker, 2000; available from Amazon.

Appendix 6: WiSE Homepage

The WiSE program is a groundbreaking effort to increase the representation and success of women in science and engineering at USC through a series of creative programs that enable women to thrive at every stage of their careers.

Committed to developing fresh approaches to policies and to building a supportive environment for both women and men, the WiSE program is driving USC to the leading edge of diversity in science and engineering.

Learn more about WiSE programs and activities.

― The initiatives of the WiSE program are making a vital difference in the lives of women at USC. This represents a crucial investment in the advancement of scientific fields and is essential to the continued academic momentum of our university. ―

-C.L. Max Nikias
Provost and Senior Vice President for Academic Affairs

Women in Science and Engineering Program
3001 Watt Way - 8FS 310
Los Angeles, CA 90095-1606
(213) 821-4400
(213) 740-5500
wiseprog@usc.edu
# WISE Undergraduate Research Fellowships

The WISE Program at USC seeks to increase the representation of women in science and engineering. WISE Undergraduate Research Fellowships offer exceptional students the opportunity to engage in paid laboratory research and to establish a mentor relationship with a research-active faculty member in their academic career.

With this early exposure to hands-on scientific research and guidance in exploring possibilities for graduate study, WISE hopes to enhance the potential for underrepresented students to choose careers in science and engineering.

Up to thirty WISE Undergraduate Research Fellowships are awarded each year to students in the USC College of Natural Sciences and Mathematics.

<table>
<thead>
<tr>
<th>Term</th>
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<th>Distribution</th>
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<tbody>
<tr>
<td>Fall Term</td>
<td>$2,500</td>
<td>$2,000 stipend to student / $500 to faculty mentor for project materials and supplies.</td>
<td>12 hours/week</td>
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<tr>
<td>Spring Term</td>
<td>$2,500</td>
<td>$2,000 stipend to student / $500 to faculty mentor for project materials and supplies.</td>
<td>12 hours/week</td>
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<tr>
<td>Summer Term</td>
<td>$5,000</td>
<td>$4,000 stipend to student / $500 to faculty mentor for project materials and supplies.</td>
<td>300 hours or equivalent of 9 weeks of full-time work</td>
</tr>
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</table>

## Application

Applicants should collaborate closely with their faculty mentor to design their research project and to prepare the application.

Detailed application guidelines and access to the online system for submission of completed applications can be found on the WISE website at www.usc.edu/wise.

A faculty review committee makes funding decisions based on the overall quality of each proposal. Key considerations include:

- the student’s potential to conduct outstanding research
- the extent of direct involvement of the student in the project
- the contribution of the experience to the student’s education
- the faculty member’s plans for direction and mentorship

## What happens during the Fellowship Period?

WISE Research Fellows participate at all levels in the activities of the research group, including:

- reviewing relevant literature
- designing experiments
- learning methods
- conducting experiments
- analyzing and interpreting results
- drawing and discussing conclusions
- relating specific results to the broader field
- communicating results in written and oral formats

Fellows confer regularly with their faculty mentors and participate in safety training, meetings, seminars, journal clubs, discussion groups, and other scholarly activities of the host laboratory, department, or research group.

At the end of the Fellowship period, students submit a written report of their progress and present the results of their research at the USC Undergraduate Symposium for Science & Creative Work held in April each year.

## Eligibility

To be eligible, students must:

- be currently enrolled at USC on an active status (at least 12 units during the academic year in which they receive the award; in the case of summer awards, the preceding semester)
- have earned at least 32 units (College) or at least 50 units (Viterbi) at USC with a GPA of at least 3.5
- have declared a major in one or more degree programs offered by WISE-eligible departments
- secure the support of a faculty mentor who is a faculty member in one of these departments
- have participated in research sponsored by the faculty mentor since the beginning of the semester in which they receive the grant, except in the summer
- not have already received a bachelor’s degree
- work closely with their faculty mentors to select and design their research project and to prepare their application

---

**Andrea Chang**

Chemical Engineering (BS) Fellow, Summer 2006

Researching in Dr. Neales’ laboratory under the WISE Fellowship has been one of the most rewarding experiences of my undergraduate academic education. As a chemical engineer, most of my classes focus on processes designed by the standard methods of engineering. However, my specific interests are more aligned with areas that are not well-understood today, such as alternate energy sources and biomimicry. Working with Dr. Neales on his microbial fuel cell project fit my interests perfectly.

Participating in the WISE program has helped to focus my research. I was given my own project to work on – not just a trial project – but one in which the results can be used by others. It is also great to know that my research is being supported by the WISE program because it provides a sense of security and appreciation. This project has helped me learn about career opportunities after I graduate, and I am also considering enrolling in graduate school, possibly in an area that combines both biology and engineering.

---

**Geologist Kenneth Neales, Wigley Chair in Environmental Science, with C. Chang, and underachieving doctoral student in Materials Science, Oliva Bragade**
Appendix 8: WiSE Brochure Programs for Ph.D. Students and Postdocs

**Outside:**

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### About the WiSE Program at USC

The WiSE (Women in Science and Engineering) program was established in 1994 to foster the advancement of women in science and engineering. It provides support and networking opportunities for female graduate students and postdoctoral scholars.

**Travel Grants**

WiSE supports female graduate students and postdoctoral scholars in attending scientific conferences and workshops. The program helps in representing diversity in science and engineering.

To be eligible, the student/postdoctoral scholar must be an enrolled USC Ph.D. student and/or a full-time postdoctoral researcher. They will be paid to travel to a conference within or outside the United States to present results of their research.

<table>
<thead>
<tr>
<th>Travel Grant Type</th>
<th>Amount</th>
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<td>Domestic</td>
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<td>International</td>
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For more information, visit [www.usc.edu/wise](http://www.usc.edu/wise).

---

**About the WiSE Program at USC**

The WiSE (Women in Science and Engineering) program was established in 1994 to foster the advancement of women in science and engineering. It provides support and networking opportunities for female graduate students and postdoctoral scholars.

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<td>$800</td>
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<tr>
<td>International</td>
<td>$1000</td>
</tr>
</tbody>
</table>

For more information, visit [www.usc.edu/wise](http://www.usc.edu/wise).
Programs for Ph.D. Students and Postdoctoral Scholars

The WISE program seeks to increase the representation of women in science and engineering at USC and beyond.

The WISE program at USC is distinct among similar efforts for its comprehensive series of programs that target scholars at various stages of their careers, not just at the faculty level.

WISE administers several programs aimed at Ph.D. students and postdoctoral scholars, focused on recruitment and retention of outstanding early-career scientists.

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<tr>
<td>Ph.D. Merit Fellowship</td>
<td>$5,000/year for one year</td>
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<tr>
<td>Postdoctoral Fellowship</td>
<td>$25,000/year subsidy for two years</td>
</tr>
<tr>
<td>Travel Grants</td>
<td>$300 - $800 (depending on distance)</td>
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<tr>
<td>Childcare Subsidies</td>
<td>$4,000 annually</td>
</tr>
<tr>
<td>Fellowship to accommodate</td>
<td>Variable annually</td>
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<tr>
<td>Pregnancy, Childbirth and</td>
<td></td>
</tr>
<tr>
<td>Adoption</td>
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</tbody>
</table>

Eligible Departments

- USC College
- Biological Sciences
- Chemistry
- Earth Science
- Kinesiology
- Mathematics
- Physics and Astronomy
- Viterbi School of Engineering
  - Aerospace and Mechanical Engineering
  - Biomedical Engineering
  - Chemical and Materials Science
  - Civil and Environmental Engineering
  - Computer Science
  - Electrical Engineering
  - Industrial and Systems Engineering

Ph.D. Top-Off Awards

The Graduate Top-Off Fellowship program facilitates the recruitment of outstanding doctoral students to USC. Funded by the WISE program, it provides $5,000 annually to each of four incoming Ph.D. students, nominated by their departments at the USC College and the Viterbi School of Engineering, and may be renewed for a second year pending good progress in the student's program.

Nominees must be offered one other substantial form of support for a fellowship (with a stipend at least equal to that of a 50% graduate assistant, 50% teaching assistantship or 50% research assistantship).

Merit Fellowships for Continuing Ph.D. Students

The Merit Fellowship for Current Doctoral Students is offered to current Ph.D. students at USC who demonstrate exceptional promise in their field. The recipients are awarded annually from the USC College and are from the Viterbi School of Engineering. Each one-year WISE fellowship carries a stipend of $5,000.

Candidates are nominated by the faculty. In order to be eligible, a WISE Merit Fellowship, the students must have passed their qualifying examination and must be funded by a 50% time research assistantship, teaching assistantship, or fellowship.

Postdoctoral Fellowship

The primary goal of the postdoctoral program is to attract outstanding postdoctoral fellows to USC, and to prepare them for successful academic careers by providing them with excellent research and professional development opportunities and mentoring. Up to four $25,000 stipends will be awarded each year for postdoctoral scholars.

Fellowship Support to Accommodate Pregnancy, Birth, and Adoption

One of the most important issues to increasing the representation of women in science and engineering is the balance of career and family obligations. For young scholars and engineers, this balance primarily involves childbirth, adoption, nursing, and infant care. The WISE Fellowship program helps Ph.D. students and postdoctoral scholars and their advisors solve any conflicts that arise between the consistencies of pregnancy, childbirth, adoption, nursing and infant care and the continuing work of the research program.

The program engages pre- and postnatal health at the department level, and in the field, in support of the WISE mission. It involves the responsible design, implementation, and evaluation of strategies to support all of the above specific aspects of the young scholar's career.

Child Care Subsidy

WISE awards annual child care subsidies for eligible doctoral students and postdoctoral scholars with primary child care responsibilities. The child must be in the infant through pre-school age range, and already enrolled at the USC Child Care Program.

The WISE child care subsidy is paid in a monthly supplement which is equivalent to $4,000 over the 12-month time period and can be provided mid-year.