

## Planting SEEDS

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President Shalala addresses members of SEEDS at the group's inaugural luncheon.

The challenges of balancing a medical career with raising three young children could have caused Holly Neville, M.D., to buckle under pressure and change occupations. But the Miller School of Medicine pediatric surgeon has been able to succeed in a highly specialized field that, she says, hasn't always done a good job recruiting and retaining women.

But Neville's isn't the only discipline that has fallen short at attracting more women.

In nearly all fields of science and engineering, women and minorities—despite their increasing numbers in graduate programs in those areas—continue to face recruitment and retention barriers as faculty at U.S. colleges and universities, according to a 2006 National Academies report, *Beyond Bias and Barriers*.

The report, which was chaired by University of Miami President Donna E. Shalala, also concluded that this dearth of women and minorities in science and engineering positions deprives the nation of an important talent source.

To that end, UM recently launched SEEDS, Scientists and Engineers Expanding Diversity and Success, an initiative that seeks to boost the number of women and minority faculty members on three UM campuses. The deans of UM's four schools with science programs—Pascal J. Goldschmidt, M.D., (Miller School of Medicine), Michael Halleran, Ph.D., (College of Arts and Sciences), James Tien, Ph.D., (College of Engineering), and Otis Brown, Ph.D., (Rosenstiel School of Marine and Atmospheric Science)—are co-investigators.

Established by UM Executive Vice President and Provost Thomas J. LeBlanc, SEEDS hosted its official debut luncheon at UM's Coral Gables campus on November 18. More than 100 women from across the University gathered to learn more about the endeavor and discuss ways for improving diversity at the institution.

SEEDS will implement a series of components including a best-practices committee and surveys that will study how UM can improve diversity and gender equity in hiring. Further, programming will draw noted women scientists to campus for early-career research conferences and workshops, networking, lectures, and other events intended to give resident female faculty members added access to role models and mentors. Additional programs open to all will enhance career and leadership skills across UM, as described at <http://www.as.miami.edu/seeds/>.

A \$1.2 million grant from the National Science Foundation is funding SEEDS as part of the federal agency's program called ADVANCE: Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers.

"The lack of women and minorities in the sciences isn't due to a pipeline problem, because studies have shown that more and more women are becoming graduate students in the sciences," explained Kathryn Tosney, Ph.D., chair of UM's Department of Biology, director of SEEDS and primary investigator for the NSF ADVANCE grant.

"What's happening is we're losing minorities unnecessarily at every transition—from graduate to post-doc, from post-doc to assistant professor, from assistant professor to associate, and from associate to full professor."

Tosney said unconscious biases are sometimes to blame for women and minorities failing to advance in the fields of science and engineering, and that only when such prejudices are discovered "can we then intellectually and intelligently change."

Programs like SEEDS, she added, help to break down such biases and barriers. "It's not only about hiring more women and minorities. It will really create opportunities for all faculty members and change things for the better," she said.

During the luncheon, President Shalala echoed many of Tosney's points. She said the most gifted recruiters of women and minority faculty members she has ever worked with were men, noting an engineering dean at the University of Wisconsin-Madison, where she was once chancellor. After losing women and minority candidates for his undergraduate program, she recalled, he would keep track of their progress as they advanced through doctoral programs so that he could recruit them back as faculty members.

Shalala praised Dean Tien, who attended the luncheon along with the three other co-investigators, for doubling the number of women faculty members at UM's College of Engineering.

After her address, Shalala took questions from the many attendees, who represented disciplines from anthropology and biology to engineering, mathematics, medicine, marine science, and psychology.

Pediatric surgeon Neville, who came to the Miller School from Joe DiMaggio Children's Hospital in Hollywood, Florida, two years ago, said programs like SEEDS provide effective mentoring for up-and-coming women scientists and encouragement that "they can have a successful career while raising a family at the same time."

Laura Kresty, Ph.D., M.S., assistant professor of epidemiology and public health, also stressed the importance of mentoring, but said the process needs to start sooner, at the undergraduate and graduate school levels.

Su Sponaugle, Ph.D., associate professor of marine biology and fisheries, said one of the toughest challenges is not in getting more women interested in the sciences but retaining them and moving them up the ladder.

“That’s the tricky part,” said Sponaugle, who has twin teenagers. “It’s a rigorous field. There are demands on their time. Many have families they have to juggle. Some are dual-career couples. And it’s that juggle that causes a lot of women to drop out.”