



WISE

Women in Science and Engineering

Winter 2009

In this issue:

- Page 2 & 3: Peer Mentoring Program
- Page 4 & 6: Living-Learning Community
- Page 7: Ambassadors
- Page 8 & 9: K-12 Outreach
- Page 10 & 11: Grad/Postdoc News
- Page 12: Grants and Scholarships
- Page 13: WISE-Wide Activities
- Page 14 & 15: General News

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NOTE FROM THE DIRECTOR

Dear Readers,

What a wonderful fall this has been! I know that by the time you read this there could be 10 inches of snow on the ground, but conjuring the memory of a beautiful fall day may still provide respite for those in need of a bit of color in the often monochrome landscape of winter.

To stretch your visualization skills even further, I now ask you to think about how it might feel to be in a 'space ship' high above the world as we know it. Our ability to orbit the Earth with a sustained human presence still seems like fantasy to me at times. I remember listening to the radio on July 20th, 1969 (the year I graduated from high school) with total awe and incredulity as Neil Armstrong became the first man to walk on the moon. The sensory knowing of space, for the vast majority of us, will continue to remain a mystery. I for one am happy about that. The reality of such things is often so far removed from the magic we have imbedded in our psyche that I resist letting go of my naïve and outdated vision of space. I selfishly want to preserve my ability to enter that world as an outlet from the general frustrations of the day – a world full of promise and discovery that is infinite

As many of you know, WISE had the privilege of sending an artifact into space last year with our own Iowa astronaut Peggy Whitson, who served as Commander of the Expedition 16 mission. We are delighted to inform you that WISE Words (see picture in left column) is back in Gilmore Hall complete with a Certificate of Authenticity! To fully appreciate the information found on the Certificate you need to get back into your expansive visualization mode. OK, ready? WISE Words spent 192 days in space, much of it on the International Space Station. It reached a maximum altitude of 217.7 statute miles above the Earth at a maximum speed of 17,094 miles per hour, and completed 3,026 orbits around the Earth. Amazing.

WISE Words and other NASA memorabilia will be on display on 4th floor Gilmore Hall beginning in January, 2009. We sincerely hope you will find the time to come and feel the magic of space imbued in these documents.

Chris

STARS ALIGN FOR TWO WOMEN ASTRONAUTS

American astronaut Peggy Whitson and her crew were set to blast off on a Russian Soyuz rocket from Kazakhstan on a six-month expedition at the International Space Station.

Two weeks later, NASA colleague Pam Melroy and her crew were slated to board shuttle Discovery at Kennedy Space Center on a mission to continue assembly of the orbital outpost.

For the first time, there were two female mission commanders in space.

"I think it's an incredibly lucky coincidence," Whitson said. "The most special part about it, I guess, is that it wasn't planned. It just happened."

"It says that it is normal to have women astronauts and it's normal to have women commanders, and statistically speaking, eventually they are going to bump into each other somewhere."

Presently, twenty-one percent of NASA's 91 astronauts are women.

"This will be cool," Whitson said.

"I think we're both getting a little bit of a kick out of it," added Melroy.

Excepted from an article by TODD HALVORSON, Florida Today.



The mission of the Women in Science and Engineering (WISE) Program is to expand and improve educational and professional opportunities for women in all fields of science, technology, engineering and math (STEM) by facilitating individual, institutional, and social change.



2008-09: The 14th Year of the Peer Mentoring Program

The fourteenth year of the Mentoring Program is well underway, with 184 participants already having attended a big welcome party and met at least twice with their partners.

Ninety-two first-year STEM (science, technology, engineering, math) students are matched one-on-one with ninety-two students returning for their second through fifth year of school. On September 2 from 6:30-9:30pm, the mentors and mentees gathered at onetwentysix Restaurant downtown Iowa City for the Welcome Party, complete with free hors d'oeuvres and soda and lots of mingling and chatting. Students also picked up their free t-shirts and reviewed a folder of information explaining how the Mentoring Program works.

September team meetings are almost complete and participants are making plans for next month's meetings. They have found some creative and fun things to do for their meetings, like going on picnics, biking around town, and doing a scavenger hunt. Many others have gone out for dinner or visited coffee shops.



The Details: More about the Mentoring Program

The purpose of the WISE Peer Mentoring Program is to provide academic and social support for first year women students majoring in STEM fields to increase their retention through higher education and into the workforce.

The Mentoring Program utilizes workshops and small group meetings to assist first-year students in accessing information and campus support services. Under the guidance of their mentors (sophomores, juniors, and seniors in the same majors) entering students learn about campus and community organizations, develop useful networks based on academic and social interests, and are exposed to students from across the spectrum of STEM disciplines. Most importantly, the mentors share their experiences in adjusting to and being part of a large university, as well as starting a challenging major. Annually, the program serves approximately 100 mentors and 100 mentees.

This year we have made some major structural changes based on research results and feedback from program participants. The core of the program remains – mentor/mentee connections are the most critical piece of the pie. To enhance these experiences and better accommodate students' busy schedules, we restructured when and how mentor/mentee meetings occur. In addition to this, we have improved the learning opportunities created by WISE to include more focus on college-to-career preparation, and we added seminars to the calendar that cater to those hoping to continue their professional education in medicine, grad school, nursing, pharmacy, and other paths. So far so good – we're excited to see how the rest of the year goes!



WISE THANKS THE FOLLOWING CORPORATE CONTRIBUTORS FOR SUPPORTING THE MENTORING PROGRAM

Accenture
Alcoa (Davenport facility)
Alliant Energy Foundation
The Caterpillar Foundation
Emerson Process Management–Fisher Division
John Deere Foundation
Pioneer Hi-Bred International
Rockwell Collins

PEER MENTORING PROGRAM



WISE Undergraduate Peer Mentoring Program

The oldest continuously-offered mentoring program at the University of Iowa (pilot, spring 1995)

MEASURES OF PROGRAM SUCCESS:

Retention of first-year participants in STEM majors through their fourth year at the UI is significantly higher than the national average.

In 2007-08:

- 95% of first-year students (mentees) successfully completed all STEM courses in fall and spring semesters.
- 91 participants made the Dean's List in Fall 2007; 67 participants made the Dean's list in Spring 2008.

In 2008-09:

- 66% of current mentors (volunteer) were also WISE mentees during their first-year at the UI.
- 36% of current mentors are serving for a second, third, or fourth year
- 39% of mentors are new to WISE, most being recruited by word-of-mouth from current mentors.



Distribution of Mentee Majors Fall 2008

Sciences	Number	Percent
Biochemistry	2	2.9%
Biology/Biological	11	15.7%
Chemistry	4	5.7%
Computer	1	1.4%
Integrative	7	10.0%
Mathematics	3	4.3%
Nursing	10	14.3%
Pharmacy	12	17.1%
Physical Therapy	2	2.9%
Physics	1	1.4%
Pre-Dentistry	2	2.9%
Pre-Med, Pre-PA	3	4.3%
Pre-Veterinarian	1	1.4%
Psychology	8	11.4%
Speech & Hearing	3	4.3%
Total Science	70	100%
Engineering		
Biomedical	10	45.5%
Chemical	5	22.7%
Civil Engineering	2	9.1%
Industrial	1	4.5%
General	4	18.2%
Total Engineering	22	100%



Women, minorities not getting mentoring in engineering and science, MentorNet study finds

August 26, 2008 (San Jose, CA) -Mentoring is a key factor in keeping women and minorities on track to careers in science, technology, engineering and mathematics, yet they overwhelmingly reported a lack of mentoring opportunities, according to a new study released by MentorNet.

MentorNet surveyed more than 2,500 students and postdoctoral scholars in science, technology, engineering, and mathematics to learn more about their need for mentors.

Over 70% of the women responding said they did not have a consistent source for advice and support they could go to without fear of affecting grades or hurting their careers. Yet, they consistently expressed their need for someone who was able to serve as an objective sounding board and as a role model.

"Women, minorities, and postdocs in engineering and sciences believe a wide range of mentoring activities is important to their academic success," Jennifer Chou-Green, Director of the study found. "Students seek mentors who are non-threatening and encouraging role models, who offer advice, who respect them as individuals, and who help them overcome challenges."

"I joined the Mentoring Program because I thought it would be nice to talk to someone who knows the ins and outs of the engineering program at Iowa so I'd know what to expect." – mentee

"I hope to find new friends, comfortably make the switch to college life, learn how to be prepared for my major, find encouragement (helps make me confident enough) to stick with it when I might want to give up." - mentee

"We've talked about where she's from, how well she's adjusting, what classes she's taking, volunteer opportunities at IOWA, and other things like that." – returning mentor

What we are and what we do...

The Women in Science and Engineering (WISE) Living-Learning Community (LLC) provides a supportive environment for first- and second-year women majoring in science, technology, engineering, and math (STEM) to study, play, and grow. The WISE LLC, first offered for the 1996-97 school year, is the oldest academic learning community on campus.

Over the life of the WISE Learning Community, WISE has provided academic and social support, to

- 558 first-year women in STEM (40-50% from the College of Engineering, depending on year)
- 129 second-year women in STEM the College of Liberal Arts & Sciences (initiated in 2003-04)



Here come the red and white WISE Women!

WISE Living-Learning Community Women were ready to roll when they hit campus this fall! Starting with the initiation of contact between 'Big Buddies' (returning LLC Women) and their 'Little Buddies' (in-coming first-years) prior to the start of school and receiving tons of great information from the summer surveys, we were all ready and waiting to greet our newbies by the time move-in day occurred. LLC orientation folders and t-shirt were ready for Orientation on August 28th, so we were full steam ahead!

As usual, the annual LLC Orientation, Scavenger Hunt, and Ice Cream Sundae Bar were a huge success. Starting with a fantastic picnic dinner (a BIG thank you to Molly Whaley, Burge Food Service) and ending with the EXTREME sundae bar (another BIG thank you to Gerene Denning, Associate Director of WISE, for the ice cream and her ability to scoop ice cream faster than anyone else I know) everyone ended the evening in good spirits and with more than adequate nutrition!

The middle of the event—the Scavenger Hunt—was ably coordinated by Alesha Nickeson, WISE LLC Liaison and second-year LLC resident. After assembling the troops, Alesha sent 12 groups of Big and Little WISE Buddies, all sporting their new red and white t-shirts, out into the community where they had a great time finding major support offices on campus as well as learning the locations of important non-campus establishments, like the Dairy Queen.

Although having orientation on a weeknight makes for a very, very long day, everyone involved was of good cheer and carried out their duties with enthusiasm, humor, and respect. We came together that evening as an odd assortment of friends and strangers, but left as a WISE family. Sometimes it's just all too good.

The WISE Living-Learning Community (LLC) Outreach Program

The WISE Living-Learning Community (LLC) Outreach Program provides an opportunity for first-year LLC women to stay connected to their home schools (K-12) and extend their college experiences by 'giving back'. They develop and deliver a presentation to high school students; sharing their knowledge of the college transition, acting as role-models for younger women and men, and encouraging them to stay in math and science throughout high school to keep their educational and career options open. Successful university students who are known to younger students and come from the same geographic background are very powerful role-models for those coming up behind them.

To see an example of the fine work the LLC Women have done in the past, visit the WISE website.

Introducing the 2008-2009 WISE RAs

ELIZABETH BREITBACH

Hello All! My name is Elizabeth Breitbach and I will be the 3rd floor RA of WISE this year. I'm from Rochester, MN but my family has been CRAZY Hawkeye fans ever since I was born so Iowa City is my second home. This is my first year as an RA and I am so excited to get started!

I am beginning my sophomore year as a Biomedical Engineering major with a math and dance minor. I am planning on continuing my education by going on to medical school and hopefully becoming a pediatrician. I love to learn about new things so I look forward to hearing all about your hobbies and interests!

I'm hoping to help our floor become a supportive and interactive resource for you all as well as plan a lot of fun activities! So get excited, this year is going to be great!

WISE is an Inclusive Community

WISE is proud of its commitment to recruit and retain a diverse community of women in STEM disciplines through programming, mentoring, and individual advocacy.

This year, the incoming class of WISE Living-Learning Community residents (n=55) includes:

- 23.2% women of color
- 14.0% women, reporting a diagnosed disability

And a rich cross-section of women across the rural-urban split.

We will continue to improve and monitor our efforts to provide a safe and nurturing environment that supports ALL women.



Elizabeth (left) and Crystal enjoying Orientation

CRYSTAL MOODY

Hello my fellow WISE ladies! My name is Crystal Moody and I will be a 2nd year WISE RA on the 4th floor this year. I have lived on the WISE Learning Community since I was a freshman. I am looking forward to meeting all of you and getting to know you throughout the year.

This year I will be a senior, double majoring in Science Education and Environmental Science with a minor in Geo-science. My future goals include graduating from college, working in the environmental field for awhile, and then eventually becoming a high school science teacher and coach.

I'm so excited for all of you to get to the University so we can get the year started!! It is going to be a BLAST!!

WISE LLC RETENTION STATS FOR 2007-08

Target:

90% of first-year WISE LLC Women will be retained in their initial major or a closely allied STEM major through their first year at the UI.

Overall First-Year Retention

Engineering: **92.3%** (n=36) Science: **100%** (n=19)

Target:

100% of second-year WISE LLC Women will be retained in their initial major (fall 2007) or a closely allied STEM major into their third year.

Overall Second-Year Retention:

Engineering: **100%** (n=9) Science: **100%** (n=15)

Comments from the WISE LLC

- I think living in the WISE community has made my college experience the best it could possibly be. I can't imagine living on any other floor.
- I love the community that WISE offers. All of the girls on this floor have motivation and provide support when it is needed most. I am not sure I would still be in the engineering program without this floor.
- WISE is the best decision I've made. I've made so many great friends and its wonderful living with people with the same goals as you.

WISE LLC Woman Part of the Inaugural Class of the Iowa N.E.W. Leadership Institute

Sponsored by the UI Women's Resource and Action Center (WRAC)

Iowa N.E.W. Leadership is an intensive 5-day residential institute designed to help undergraduate women develop public leadership skills, learn about civic involvement, and network with women in public leadership from across the state. Developed by the Center for American Women and Politics at Rutgers University in 1991, and conducted at 17 universities nationwide, this prestigious non-partisan program has supported aspiring leaders throughout the country for over 16 years.

Participants are selected through a competitive application process. 2007-08 WISE LLC Woman, Brianna Steitzer, was accepted into the



Iowa N.E.W. Leadership Institute as part of the inaugural class at the University of Iowa. Here is what she had to say about this fantastic opportunity: "Iowa N.E.W. leadership is a week long program where young women can gain the confidence and skills to go out and make change in their neighborhoods. A major focus is women in politics; however, being interested in politics is not necessary. I had a lot of fun meeting and getting to know a great group of fellow female students who have the passion to make change. I also got to meet many influential men and women from Iowa and around the nation who will help me in further endeavors. I would recommend the program to all WISE women because it really does give you the skills and confidence to go out and help the community."

Bri Steitzer

**30 women - 5 days - 1 mission:
Empowering Women to Lead!**

University studies benefit of living in a Learning Community

The Task Force on Learning Communities was established by the Executive Committee of the Student Success Team (Office of the Provost), and convened in the spring of 2007. Over the past year, the Task Force has done a great deal of work collecting information from UI Living-Learning Communities as well as from a range of institutions across the U.S. From time to time, I will relay tidbits of what they have found and report on the developing vision for Learning Communities at the UI.

Based on data collected through a survey given to students living in current UI Living-Learning Communities, the Task Force found that the most commonly cited and/or implied goals for LLC's, as reported by survey respondents, were:

- Increased student persistence and retention
- Increased student satisfaction
- Building of positive community
- Support for transition from HS to College
- Specific skills development

Excerpt from a Task Force report on the potential scalability of a Learning Communities Program at the UI:

We envision that when fully implemented the Learning Communities Program (see proposed definition below) will be able to accommodate roughly 3,000 students or 70% of an entering class of 4,300 first-year students. To reach 70% we recommend increasing the spots available to students in the living-learning communities (residential) from 800 to 1800, enrolling 1200 students into Linked-Courses Communities and registering 900-1100 students into the College Transition course. Those options translate into opportunities for approximately 4,000 first-year students.

NOTE: The Task Force has provided for 25% overlap in numbers based on the probability that a subset of students will choose to be involved in multiple Learning Community Program options.

Proposed definition for learning communities at The University of Iowa put forth by the Task Force on Learning Communities.

Learning Communities are programs intentionally designed to foster shared learning experiences for defined groups of students. Learning Communities foster meaningful institutional engagement and student success and may include living-learning programs, linked courses programs or combinations of these experiences.

WISE takes home the Goods from Ohio State!

This year the WISE-sponsored intramural basketball team was given the chance to attend the National Intramural Tournament at Ohio State in Columbus, Ohio. Even though they didn't bring back a lot of wins, they had a great time and did bring back one piece of hardware, The Sportsmanship Award! Way to go girls!



Our own Miss Congenialities.
And they really do want world peace

Who are the Ambassadors?

The Ambassadors are a team of both undergraduate and graduate students in science, technology, engineering, and math (STEM) fields who organize and participate in outreach, leadership, and career development experiences. The program is run and kept alive by the enthusiasm and ideas of the student Ambassadors, and the WISE office aids their efforts by providing an annual budget, resources, and support. The WISE Ambassadors program is open to all students, and new participants are always welcome!

Recap of Winter 2008 Girl Scout Badge Day

After postponing the originally-scheduled event on December 1 due to the first big ice storm of the winter, the WISE Ambassadors were able to reschedule and re-plan the event for Saturday, February 9, at the Iowa Memorial Union. We were sad to lose a few of our registered participants who had scheduling conflicts, but for the 50 girls who were able to make it, we made it well worth their time.

The day started with a fun and informative presentation from Associate Professor Jane Nachtman (Department of Physics & Astronomy), for which we all donned 3-D glasses to view the effects of light through different material. The students then broke into smaller groups to do hands-on activities planned by the WISE Ambassadors. They made casts and learned about bone strength, learned about chemical reactions while making gels, built catapults and competed for prizes, learned about the physics of magnets, and made balloons rise and raisins jump while exploring gases and reactions. We wrapped up the day's activities with snacks and drinks, followed by a great presentation by Associate Professor Chris Brochu (Department of Geoscience), who spoke about paleontology and showed us many neat artifacts. The Ambassadors then handed out the badges earned by the Girl Scouts and answered questions from the Scouts, parents, and troop leaders.

Thank you, Ambassadors, for all your hard work and enthusiasm, and thank you to the Girl Scouts – you were a great group!



Date Set for Winter 2009 Girl Scout Badge Day

This year's Girl Scout Badge Day is scheduled to take place on Saturday, February 21, in the University Capitol Centre in downtown Iowa City. More details will be released soon. If you have any questions, please contact wise@uiowa.edu or Girl Scouts of Eastern Iowa Western Illinois (GSEIWI).

First Meeting: Sunday, September 21

If you missed the first meeting, no worries! The WISE Ambassadors meet typically on Sundays every other week as a whole, and program committees meet separately during the week.

Join us for whatever your schedule allows. We'd love to have you! See the WISE website for meeting dates, or email wise@uiowa.edu

WISE AMBASSADORS WEBSITE

www.uiowa.edu/~wise/Undergrad/Ambassadors/Ambassadors.html

WISE AMBASSADORS ON FACEBOOK

[iowa.facebook.com/group.php?gid=6673160684](https://www.facebook.com/group.php?gid=6673160684)



What the Girl Scouts had to say about Badge Day

"That was a very good way to spend a Saturday. THANK YOU"

"Awesome! Wicked! Holy cow!"

"Thank you, I really liked it a lot."

"I loved learning things here! You are all #1."

"I want to come back next year!"

Troop #1428 from Tipton wanted to let you know that all 5 girls had a wonderful afternoon with the W.I.S.E. Team. They all told me on the way home that the day was a lot of fun. Thank you so much for putting on this event for the Girl Scouts!!!!

Troop Leader - Debra Shearer

WISE Provides K-12 Outreach to Grant Wood AEA Schools to Promote Science/Engineering

In Spring 2008, WISE teamed up with the Grant Wood AEA to help encourage curiosity and interest in science and engineering in school age children. Our first group of kids was from Cedar Rapids McKinley – seventeen 6th-8th grade girls came to UI to see a presentation by Professor David Wilder, biomedical engineer, on the fragility of the spine. Professor Wilder and his Graduate Assistant, Lauren Graupner, used a Slinky, rubber bands, Oreo's, and marshmallows as educational props to lead students through activities and examples. The girls also had a chance to talk with 6 WISE students about their life in college and what it's like to be a woman in male-dominated fields.

Our second group was from English Valleys Elementary in North English – twenty-two 4th-5th grade girls joined us at the UI Hydraulics Model Annex and the Nursing Clinical Education Center (NCEC) for a Saturday event. Engineers Troy Lyons Dan Ceynar led the girls through a tour of the UI hydraulics lab where they saw 6 different scale models of various projects the Annex is currently researching, including the new women's rowing facility. At the Nursing Clinical Education Center, Teri Boese and Peg Hyndman, along with two Nursing students, led the students through several activities, during which they cared for patients in simulation labs and tried on real scrubs, gloves, and booties. The girls also asked questions to three WISE students about their education and career plans.

Our third group was from Hills Elementary, which included two separate groups (fifteen 3rd-4th graders and sixteen 5th-6th graders) with both boys and girls attending. The 3rd-4th graders met with Professor Steve Hendrix (Biological Sciences) to learn about research on bees and pollination. Steve brought a collection of bees, butterflies and bee mimics to show as examples, and the kids were even able to take some of the specimens out of the cases and hold them. The 5th-6th grade students learned from Structural Engineer Jane Driscoll (VJ Engineering Company) about the bridges she has helped design and some advantages and disadvantages to different bridge designs. The students made bridges out of straws and tape and tested their designs to determine their maximum weight limits. Five WISE students joined the two groups for the afternoon.



WISE sends a big thank you to the teachers for spreading joy of science, and to our contact at Grant Wood AEA, Lori Kriz. We would like to also send a special thank you to our presenters – we couldn't have done it without you!



Corridor STEM Initiative (CSI) holds Scientific Conference at UI Seamans Center

Because of our work with several of the VAST (Van Allen Science Teaching) Center grant schools, WISE was invited to attend and set up a booth at CSI's Scientific Conference, highlighting students' work of some of the schools involved in the grant. At the conference, College of Engineering Dean Barry Butler spoke, and the event was well attended by the CSI Governing Board, superintendents and school board members, Rockwell Collins, and the local media! It was a big event, and we were very impressed by the hard work done and the amount learned by these students over the course of the year. We hope these wonderful collaborations continue for years to come!

Mid-Prairie Middle School holds Outside-the-Box Career Conference

On February 26, the science department at Mid-Prairie Middle School hosted the Outside-the-Box Career Conference for Girls, to help inform young girls about the variety of opportunities available to them in the sciences and engineering. Sarah Vigmostad, a recent PhD graduate in Biomedical Engineering, volunteered her time to speak to the girls about her career path and academic background and then guided the students through an activity in which they all made their own finger casts. The girls had fun making their casts, learning about bone strength and injuries, and hearing all about Biomedical Engineering! Thank you, Sarah!

Occupational & Environmental Health PhD student speaks at Coralville Central Elementary Career Day

On April 11, Coralville Central Elementary School held a Career Day, at which a special emphasis was placed on bringing in as speakers women and minorities who are underrepresented in their fields or who are doing jobs outside of traditional gender roles. PhD candidate Londa Vanderwal volunteered as a WISE representative and wowed the audience with her experiences in agricultural health and safety, including her position working in food hygiene with the United Nations Food and Ag Organization in Rome, Italy. After the event, Londa said, "I enjoyed talking to them about the importance of agriculture, public health, taking science and math classes, etc." Thank you for your great work, Londa!



North Cedar School District tours WISE Living-Learning Community and speaks to WISE students

On April 24, over twenty students from the North Cedar School District met with four WISE Living-Learning Community (LLC) students for a tour of the LLC floors and rooms, as well as a Q&A session in a floor lounge. The WISE students gave the girls an inside look at what it's like to live in a residence hall, and answered questions about a variety of topics, including having a roommate, what types of classes to take, what are football games like, and how did you choose your major. The girls also had great plans themselves – to be veterinarians, politicians, astronomers, and dentists, among many other things! The visit was a lot of fun for the North Cedar students and WISE!



THANK YOU to the following WISE student volunteers for being such great role models for K-12 outreach, including the Grant Wood AEA events, Girl Scout Badge Day, Outside the Box Career Conference at Mid-Prairie Middle School, and Career Day at Coralville Central!

Kaitlyn Adams, Alysa Bradley, Lora Buckman, Ashley Croghan, Amanda De Hoedt, Adriane Downs, Maria Drout, Shayla Fawcett, Laura Fredrickson, Ellie Frett, Elsa Gaito, Elle Johnson, Brandy Kleinheksel, Lindsey Knake, Kelli Krautmann, Kaley La Porta, Patrice Metcalf-Putnam, Amber Meyer, Kendra Meyer, Sarah Minner, Laura Mozden, Laura Northrup, Irma Nydegger, Michelle Potts, Sam Rossman, Harvest Schroeder, Sara Schmeckpeper, Liz Theobald, Londa Vanderwal, Sarah Vigmostad, Jaime Williams, Jennifer Yu

To request an on-campus tour, campus-based presentation or a presentation at your school or other off-campus location, please contact WISE. Please provide as much notice as possible so we are able to best prepare a great experience for your group! Contact Andrea at 319-335-3509 or email WISE@uiowa.edu with questions or requests.

Fall 2008 WISE Grad/Post-Doc Professional Development Workshop Series

With the new calendar year comes the return of the WISE Grad/Postdoc Professional Development Workshop Series! This series, now in its fifth year, provides doctoral and post-doctoral women with workshops on topics related to their professional development and career progression. WISE Workshops go a step beyond just providing information by creating a forum for women to address issues with other similarly-situated women.

Workshops are kept small (typically no more than 16 participants) to provide for a high level of interaction among participants and presenters, and to create an environment to support open dialogue. In addition, each program is structured as a two-part series with related “homework” required between the meetings, allowing participants to begin putting into action the skills being learned.

FALL 2008 SCHEDULE

Developing a Teaching Philosophy in the Sciences & Engineering

As part of the application for a tenure-track faculty position in the sciences and engineering, it is now becoming standard practice to require a teaching philosophy from applicants. This workshop provides an overview of the essential content of a teaching philosophy as well as specific strategies for developing one. Seminar participants will have an opportunity to draft a philosophy statement and receive structured feedback.

Facilitator: Carolyn Colvin, Associate Dean for Academic Affairs & Graduate Programs, College of Education

Date & Time: Tuesdays September 9 & 23, 4:00 p.m. – 5:30 p.m.

Location: 3220 Seamans Center

Strategies for More Efficient and Effective Literature Searches

Graduate students must be able to effectively and efficiently meet their scholarly research needs, but the technology that facilitates good research methods as well as information databases are continually changing. The UI library provides students with access to a great variety of databases and resources, and participants will become familiar with research strategies, the UI library system and other sources for research.

Facilitators: Lisa McDaniels, Instruction Librarian–Main Library;
Jenna Laurence, Instruction Librarian– Hardin Library

Date & Time: Late September and Early October

Location: Hardin Library and Main Library Arcade

Writing a Successful Research Grant Proposal

This workshop provides an overview of the process required to complete a grant proposal, from identification of appropriate funding sources to submission for review. Participants will have the opportunity to discuss and practice strategies on a variety of special topics, such as data management, recruitment, measurement, and sample size/ power issues.

Facilitator: Dr. Deborah Dawson, Director of Biostatistics, College of Dentistry; Professor, Preventive and Community Dentistry, and Biostatistics

Date & Time: Mondays November 3 & 17, 3:00 p.m. – 5:00 p.m.

Location: 5-664 BSB

Developing a Research Statement in the Sciences and Engineering

As part of the application for a tenure-track faculty position in the sciences and engineering, it is becoming standard practice to require a research statement. This workshop provides an overview of the essential content of the research statement as well as specific strategies for developing one. In the follow-up session, research statements developed by the participants will be critiqued.

Facilitators: Cinda Coggins Mosher – Lecturer, Department of Rhetoric, College of Liberal Arts and Science; Ben Mosher –MFA Grant Writer and Tate High School English Teacher

Date & Time: Thursdays October 16 & 30, 5:00 p.m. – 6:30 p.m.

Location: MERF 2126

For more information about WISE Grad/Postdoc Professional Development Workshop Series, please visit our website at www.uiowa.edu/~wise and click on the Grad/Post Doc link or contact Tess Barker at maria-barker@uiowa.edu.

Spring 2008 Workshop Series in Review

WISE regularly solicits feedback and suggestions from past participants on what programs and workshops our grads and postdocs would like to see offered. Based on requests, WISE partnered with staff across the UI campus to develop three new workshops for the Spring 2008 series:

- Strategies for More Efficient and Effective Literature Review Searches
- Using Networking in Support and Enhance Your Professional Goals
- Completing an Institutional Review Board Application: Tips for Faster Review

Initial reaction to these new programs was extremely positive, with a record number of registrants. One student commented that she learned “a lot of tips and tricks that I would never have guessed on my own.”

WISE also offered one of its more popular workshops “Effectively Responding to Reviewer Comments” facilitated by WISE Advisory Board member, Dr. Deborah Dawson. WISE aims to offer these workshops at just the right time for students, and one participant felt WISE met its goal as she was “on the verge of starting to write grants and ... trying to gather information” about the grant submission process.

If you have additional suggestions for WISE workshops, or would like to volunteer to present a workshop, please contact Tess Barker at maria-barker@uiowa.edu.

WISE Grad/Postdoc Workshop Facilitator honored with the 2008 Audrey Qualls Diversity Award



Rebecca Anthony, director of the Educational Placement Office in the UI College of Education and a WISE Grad/Postdoc Workshop facilitator, was the staff recipient of the 2008 Audrey Qualls Diversity Award. Anthony’s work in the College of Education sparked the inspiration for extending the ePortfolio (tm) to WISE participants to better help women showcase their professional accomplishments in ways that will help them more successfully market themselves. Anthony developed an ePortfolio program specifically for WISE participants.

The Audrey Qualls Commitment to Diversity Award is a student-nominated award given annually to a faculty and a staff member in the College of Education. The award recognizes their demonstrated commitment to diversity.



Dr. Carolyn Colvin discusses teaching philosophies with two workshop participants



The importance of creating an inclusive classroom is discussed by Dr. Doty Simpson-Taylor and workshop participants

WISE Remembers Dr. Eunice Schuytema Beam

Eunice C. (Schuytema) Beam, 79, died Feb. 5, 2008 at her home in Naples, Florida. In 2001, Eunice endowed the WISE travel grant program, named in her honor, which has provided support for 75 doctoral students to date. WISE is deeply indebted to Eunice for her generosity and support.

The following is taken from Dr. Beam’s obituary:

“One of her greatest joys was providing an endowment for the WISE (Women in Science and Engineering) program at the University of Iowa. The Eunice Beam Travel Grant Program is an endowed fund that allows WISE students to apply for grants to travel to professional conferences. She was a member of the President’s Council at both the University of Iowa and the University of Illinois for her contributions to both institutions. In lieu of flowers, the family suggests contributions to the WISE program at the University of Iowa <http://www.uiowa.edu/~wise/>.”

Two New Funding Opportunities for Undergraduate Women

We are pleased to announce two new funding opportunities for undergraduate women in STEM fields available through WISE starting this fall: the Carol Fethke Scholarship and the Lina Arbash-Meinel Scholarship.



The Carol Fethke Scholarship, a \$1,000 gift which will be given in alternating years to a Tippie College honors student and a student in the Women in Science and Engineering (WISE) Program at Iowa, was established by Fethke's close friends and colleagues in the fall of 2007 to recognize her contributions as an economics professor, student mentor, and as "First Lady" of the University of Iowa while her husband, Gary Fethke, served as interim UI president. Dr.

Fethke received her M.A. and Ph.D. in Economics from the University of Iowa and served as a faculty member in the Tippie College of Business

until May, 2004. Carol also served on the WISE Advisory Board for four years and was a strong and vocal advocate for the program.



Beginning fall of 2008, WISE will be competitively awarding two \$300 travel scholarships a semester to undergraduate women in Biomedical Engineering through the Lina Arbash-Meinel Scholarship Program. Dr. Arbash-Meinel received her Ph.D. in Biomedical Engineering from the University of Iowa in May, 2006. The title of her dissertation was Development of Computer-Aided Diagnosis System for Breast MRI Lesion Classification. Dr.

Arbash-Meinel was also a recipient of a Eunice Beam WISE Travel Grant while a doctoral student at Iowa. Please note – you do not need to be presenting at a conference to be eligible for funding through this program!

For more information about either scholarship, contact WISE via email at wise@uiowa.edu.

Dr. Eunice Schuytema Beam WISE Travel Grant Program

The Dr. Eunice Schuytema Beam WISE Travel Grant program awards three \$300 grants per semester to doctoral students who are presenting their work at meetings, symposia, conferences, or other professional or academic gatherings. Submission deadlines are October 15 and February 15.

To be eligible, an applicant must:

- Be a female doctoral student at UI (Ph.D. track) in one of the science, technology, or math (STEM) departments eligible for funding (see WISE web site).
- Have been notified of acceptance to give an oral presentation of at least 10 minutes at a national or international conference, chosen competitively. Please note: poster presentations are not eligible.
- Submit a completed application, including documentation as noted on the application form available on the WISE web site.

Beam WISE Travel Grant Recipients for Spring 2008



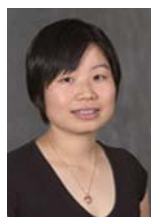
Ye Li, a doctoral student in Analytical Chemistry, delivered an oral presentation entitled "separation of Endogenous Fluorophores in Normal and Cancer Cells by Capillary Electrophoresis" at the 59th Pittsburgh Conference in New Orleans, Louisiana on March 6, 2008.



Shuman He of China delivered an oral presentation on the Electrically Evoked Binaural Interaction Component of Auditory Brainstem Response. Her work was presented at the 10th International Conference on Cochlear Implants and Other Implantable Auditory Technologies conference in San Diego, California in April. Shuman is a doctoral student in the College of Liberal Arts and Sciences.



Joni Lakin, a doctoral student in educational psychology in the College of Education, delivered an oral presentation at the American Educational Research Association conference on March 27, 2008. Her presentation focused on "Accuracy and Assessment: Competing Goals in the Selection of Students for Gifted Enrichment Services."



Suhong Zhang, a biostatistics doctoral student in the College of Public Health, delivered an oral presentation titled "A Mixture-Model Approach to Bivariate Hybrid Censored Survival Data" at the International Biometric Society conference in Arlington, Virginia on March 18.

WISE-WIDE ACTIVITIES



End of Year Picnic at City Park – wet, but not flooded

On May 4, the entire undergraduate WISE population was invited to attend a potluck picnic celebrating the end of the year and thanking them, from WISE, for all their involvement and leadership. Additionally, it was a time to celebrate the achievements of our many graduating seniors, many of whom have been involved with WISE during their entire undergraduate career.

While the picnic was held before the floods, the park was definitely wet. It didn't deter our women from throwing the football, catching a Frisbee, or running around – we made the most of it – muddy and wet! The day was gorgeous, the food was excellent, and the games and conversation made for a lively afternoon. With over 50 students in attendance, it was also a full house! Thank you to all the WISE students who attended, and thank you also to Kelsey Montross (07-08 WISE student assistant) and the party planning committee for a wonderful event.



Med School Seminar and Nursing Seminar Held for WISE Undergrads

Last spring, WISE held a 'Preparing For Nursing' seminar in the Nursing Clinical Education Center. The seminar included a short presentation from Linda Myers, Nursing advisor, and current Nursing student and WISE Mentor, Amy Truitt, spoke about her experiences and shared advice to the pre-Nursing Students in attendance. Sandwiches and snacks were provided, and following the seminar, Linda Myers gave a tour of the area.

On April 14, WISE held their annual 'Applying to Med School' seminar, during which Cathy Solow, Assistant Dean Carver College of Medicine, and current medical students meet with undergraduate WISE students who are interested in learning how to best prepare for the med school application process and life as a med student. The three med school panelists this year were: Jessica Leinen, Kimberly Kenne, and Heather Byers.

Why WISE? New Seminar Added in 08-09

On the 11th of September, WISE hosted a seminar, titled Why WISE, at which WISE staff explained the history of the Women in Science & Engineering program, the reasons behind the importance of such programs, and the various programs/services that make up UI WISE. Snacks and beverages were provided during the lunchtime meeting. Ten students and one faculty/staff member attended the event.

DON'T FORGET -The WISE Resource Library in 423 Gilmore Hall has tons of DVD's that you can check out! We have titles from many different series like Nova, Scientific American Frontiers, Secrets of the Dead, Frontline, American Experience, and Smithsonian. The library also has over 600 books, journals, reports, periodicals, and curricula for your use and over 75% of WISE materials are not found in any other library on campus. Students, staff, faculty, K-12 teachers and community members are all welcome to check out WISE materials. Want to take a look? Email: wise@uiowa.edu to set up an appointment just in case we're out when you stop by. We'd sure hate to miss you!

WISE Undergraduate Majors

Actuarial Science
Applied Physics
Astronomy
Athletic Training
Biochemistry
Biology
Chemistry
Chiropractic (pre-)
Clinical Laboratory Science
Computer Science
Dentistry (pre-)
Engineering
 Biomedical
 Chemical and Biochemical
 Civil and Environmental
 Electrical and Computing
 Industrial
 Mechanical
 Undeclared
Environmental Sciences
Geoscience
Health and Sport Studies
Integrative Physiology
Mathematics
Medicine (pre-)
Microbiology
Mortuary Science (pre-)
Nuclear Med. Technology (pre-)
Nursing
Optometry (pre-)
Pharmacy
Physical Therapy (pre-)
Physician Assistant (pre-)
Physics
Podiatric Medicine (pre-)
Psychology
Radiation Sciences (pre-)
Science Education
Speech and Hearing Science
Statistics
Veterinary Medicine (pre-)

Did You Know?

The Women in Science & Engineering (WISE) Program was established in August of 1994 with joint support from the offices of the Vice President for Research (VPR) and the Provost. The creation of a WISE program was put forward by a UI task force in their Campus Action Plan: Women in Science, Engineering, and Mathematics, April 1993. The action plan was developed following the Women in Science & Engineering (WISE) Conference at Indiana University, October 1992, sponsored by the CIC and attended by 25 UI participants.

Iowa Edge starts the year off right!



Iowa Edge, in its third year, is a one-week extended orientation for incoming students of color and first generation college students sponsored by the Kevin & Donna Gruneich Charitable Foundation.

This year Iowa Edge hosted 52 fantastic student and with the able assistance of 10 Peer Leaders (upper-level students many of whom had previously taken part in Iowa Edge), the program was a great success.

WISE Director, Chris Brus, served as the chair of the Programming & Space subcommittee this year and although you would imagine the programming part of the endeavor to be the most challenging, this year it proved to be space that was the hardest to come by. With the loss of several UI buildings due to the flood, plans had to be revisited and other arrangements made. Thanks to the extreme good will of many, many UI staff and faculty, everything worked out in the end, so what more can you ask for?

We once again had the privilege of enjoying breakfast with President Sally Mason, who gave a warm welcome to the Iowa Edge students and genuinely enjoyed her time conversing with the outstanding students that come to the UI through the Iowa Edge program.

WISE is also very proud to have 4 Iowa Edge students in our Living-Learning Community this year. They are Marciha Chatman, Zsaland Dixon, Jessica Schultes, and Orriena Snyder.

9th Annual Interdisciplinary Health Group (IHG) Research Poster Session

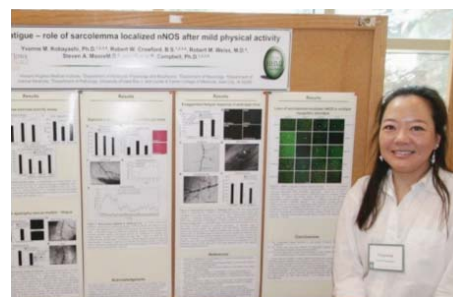
The 2008 IHG Student Poster Session was a great success, with 32 student researchers from across campus presented their cutting edge research. WISE Director, Chris Brus and Associate Director, Gerene Denning, served as judges for the poster session and were thrilled with the recipients of the two awards sponsored by WISE. Congratulations to both of you and great success in the future!



Lena R Hann, Masters Candidate

College of Public Health, Department of Community and Behavioral Health

Title: Bacterial Vaginosis and Post-Termination Infection: Protocol Questionnaire Results for 32 National Abortion Federation-affiliated Clinics



Yvonne M. Kobayashi, PhD, Research Fellow

Roy J. and Lucille A. Carver College of Medicine, Department of Molecular Physiology and Biophysics

Title: NO to Fatigue - Role of Sarcolemma Localized nNOS After Mild Physical Activity

Other Author(s): Robert Crawford, BS; Robert Weiss, MD; Steven Moore, MD; Kevin Campbell, PhD

Shameika Wilmington , WISE Student Leadership Awardee Multicultural Graduation and Recognition Banquet (MGRB) 2008



Shameika Wilmington, from Davenport, Iowa graduated with a Bachelor of Science in Biochemistry in May 2008 and was chosen to be the MGRB WISE Student Leadership Awardee for 2007-08. Shameika served as the Resident Assistant (RA) for the WISE Learning Community from 2004-2006. She then remained involved with the WISE program and became the Liaison to the LLC from

2006-2007. Along with her active role in WISE, Shameika also volunteers in the Child Psychiatric Unit at the University of Iowa Hospital and Clinics, and is a member of the 100-hour student volunteer club. Shameika also conducted independent research in Biochemistry in the laboratory of Pamela Geyer, for four years. She received many awards for presenting her research, including two national awards, from the Annual Biomedical Research Conference for Minority Students (ABRCMS). During the summer of 2006, Shameika participated in the Summer Research Internship Program at the University of Virginia. Shameika is now pursuing a doctoral degree in Molecular and Cellular Biology at Northwestern University. WAY TO GO SHAMEIKA!!!

Iowa becomes one of two states chosen to join the NSF STEM Equity Pipeline Project

Last April a team of Iowan's interested in broadening the scope of state efforts to increase participation of girls and women in the STEM pipeline attended the STEM Equity Pipeline Leadership Institute in Arlington, Virginia to assess the feasibility of submitting a proposal to become one of the state teams supported by this NSF-funded grant. Upon returning to Iowa, the attendees gathered interested parties from around the state and helped facilitate the submission of a proposal to NSF through the Iowa Department of Education. We received notification that Iowa has been selected to join the five states already supported by this project and we are thrilled that money will now be coming into the state to coordinate and extend existing STEM initiatives.

The STEM Equity Pipeline Project, funded by a grant from the National Science Foundation (NSF), is a collaborative effort between State Teams and an Extension Services Group of leading researchers and practitioners in gender equity and STEM education. Consulting and professional development services are provided to State Teams who serve as "extension agents" working with local educators to adopt research-based strategies that will lead to greater participation of women and girls in STEM Career Cluster programs at both the secondary and community college levels. States already involved in this NSF Project include California, Illinois, Missouri, Oklahoma, and Wisconsin.

Members of the original Iowa Team:

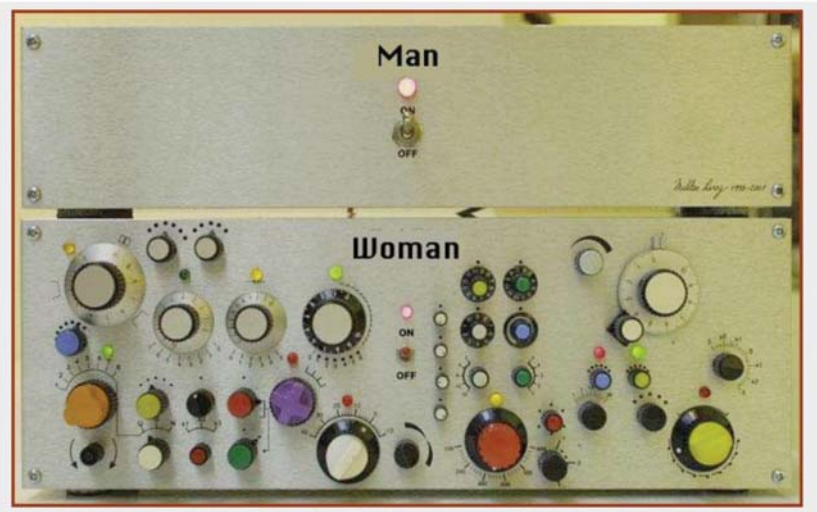
Rachel Scott Hoepker, Division Administrator, Iowa Commission on the Status of Women

Chris Peterson Brus, Director of Women in Science and Engineering (WISE), University of Iowa

Karen Zunkel, Director of the Program for Women in Science and Engineering (PWSE), Iowa State University

Debbie Boring, Administrative Consultant on Federal and State Programs, Iowa Department of Education

Life Explained



The University of Iowa Foundation

WISE works closely with The University of Iowa Foundation (UIF) to stay abreast of funding opportunities that support our mission and goals. Maintaining close connections with our corporate sponsors and alumnae is critical to the fiscal health of WISE and we are very fortunate to have strong UIF advocates in our corner, such as Susan Sweeney and Diane Johnson, with Corporate and Foundation Relations, and Kate Metcalf, Associate Director of Development for the College of Engineering.

If interested in supporting WISE, please visit the WISE website (<http://www.uiowa.edu/~wise>) and follow the link to make an online donation through The University of Iowa Foundation.



WISE

Women in Science and Engineering

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Phone 319-335-3530
wise@uiowa.edu
www.uiowa.edu/~wise

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- University of Iowa Staff
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Name _____

Department/Major _____

Address _____

City, State, Zip _____

E-mail address _____

Return by U.S. Mail or Campus Mail to:
WISE Program, 422 Gilmore Hall, Iowa City, IA 52242-1320
OR Respond by email: wise@uiowa.edu



WISE Staff, left to right:
Alesha Nickeson–Living-Learning Community Liaison
Madeline Godar–Mentoring Assistant
Andrea Beloy–Assistant Director of Undergraduate Programs
Tess Barker–Grad/Postdoc Programs Coordinator
Chris Brus–Director

Remember to visit the WISE website to learn more about the programs and services offered through our office! Each month we profile a new student or staff/faculty member and update our ‘news’ section on the home page, so Check It Out to get the latest info and to learn about the amazing women associated with WISE!
www.uiowa.edu/~wise