



WISE

Women in Science and Engineering

Spring 2007

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.



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Note from the Director

WISE in Space or “What’s a nice girl like you doing in a place like this.”

Thanks to the generosity of Mt. Ayr, Iowa native and NASA Astronaut Peggy Whitson, a little piece of WISE will be heading into space this fall! We feel very fortunate to be one of a handful of Iowa entities asked to submit an artifact to accompany Peggy on her upcoming mission.

Working with a project officer at NASA, we received and followed stringent guidelines when preparing our artifact and thanks to the input of the WISE Advisory Board, the ‘design’ inspiration and sheparding of the project by Board member Padmini Srinivasan, the creative and inspirational comments submitted by WISE Women, and the exquisite crafting of the artifact by Cheryl Jacobsen, we ended up with an incredible piece of original art! The WISE artifact will go into space on the NASA Space Shuttle in October, rendezvous in space with Peggy, who is blasting off from Russia in a Soyuz, and remain in orbit for approximately five months. When Peggy and the WISE artifact return to earth, the piece will be coming home to the UI WISE Program, with a certificate of authenticity noting the mission and the dates it was in space. After framing, this out of the world piece will hang proudly on the walls of WISE. We invite all of you to view it upon its return. We can all take pride in the fact that the UI WISE Program ended up on Peggy’s short-list.



Have a great conclusion to this academic year and with me, look forward to another stellar academic year, with all the possibilities that come with new beginnings, in 2007-08. Over and out. - Chris

WISE Student Leadership Recipient Multicultural Graduation and Recognition Banquet

Lisa Renee Jones-Hall will receive her Law Degree (J.D.) from the University of Iowa’s Boyd College of Law in May. As the first woman in her family to graduate from college, the possibility of pursuing a post-graduate degree was something that at first seemed out of reach - but Lisa is a determined and tenacious woman! Entering Law School as a non-traditional student - Lisa had worked as a St. Louis City Police Officer in the domestic violence response unit prior to admission to law school - Lisa has been a great role-model for other women considering re-entry into higher education after taking a ‘life’ break.



Lisa Jones-Hall

For the past year Lisa has worked as the WISE K-12 Outreach Liaison, disseminating information about resources available to K-12 teachers through the WISE Resource Library as well as arranging opportunities for current WISE students to impact upcoming generations of young women interested in math and science.

We thank Lisa for her great work this year and wish her success in her law career, where I have no doubt she will continue to be a great role-model for other young women, including her daughter Jordin.

WISE WISE UNDERGRADUATE PEER MENTORING PROGRAM

Mentoring Program

WISE Student Employee Receives Award for Work with WISE Peer Mentoring

We are proud to announce that Kelsey Montross, student assistant for the WISE Peer Mentoring Program, was awarded a Certificate of Appreciation from the Student Employee of the Year committee at UI. She was nominated for this award and chosen as a finalist based on her reliability, quality of work, initiative, professionalism, and uniqueness of contribution to the campus, WISE Office, and the students we serve. The National Student Employment Association sponsors the National Student Employee of the Year competition annually and winners are announced in conjunction with the National Student Employment Week (April 9-13).



Out of the 11,000 student employees on campus, Kelsey was one of 59 nominated and one of 7 to win an award. On April 6, she was presented her certificate by Cindy Seyfer, Associate Director of Student Financial Aid. She also attended a congratulatory luncheon at Interim President Fethke's home on April 12.

Please help us in congratulating Kelsey on her achievements. We are very lucky to have her as part of our team - she is an amazing asset to WISE, and she's an absolute joy to work with. Good work, Kelsey!

What did you do for Team Meeting 4?

We went out to lunch together and had a great conversation. We also made plans to go to some concerts together and possibly skiing. :)

We discussed pros and cons of our major, test taking strategies, how to get involved with activities in the major.

We both have a lot of tests coming up so we met at her dorm and we studied together and talked.

We discussed current classes and future decisions, as well as talked about our families and what is going on in our lives.

I picked her up in the morning in between her classes; we went and ate breakfast at Bruegger's Bagel (since she had not eaten there before).

WISE Mentoring Program Accepting Registrations for 2007-2008 Year

While applications have been pouring into the WISE Mentoring office since February, we seem to always be in need for more mentors and mentees! If you're an incoming student this fall with a science, technology, engineering, or math (STEM) major, contact wise@uiowa.edu to learn how you can benefit from this great program. If you're a third-year or higher student in STEM, we'd like to talk to you about becoming a mentor! Email us, call (319-335-3509), or stop by GILH 413 to learn more.

WISE Mentoring: Workshop 4 – Career Paths in the Sciences and Engineering

On March 20 & 21, The Mentoring Program held its last workshop of the academic year, titled Career Paths in the Sciences and Engineering. Each night began with a free pizza dinner for the participants and guest speakers, followed by a panel discussion from our guests who represented various STEM disciplines. We had some great discussions! Common topics of interest were: choosing the right time to go to grad school, work-family balance, the importance of certain college courses in your future career, finding the right internships and work experiences, and prioritizing goals and interests to help you succeed. The guest speakers also spoke about their personal career paths, successes, challenges, goals, and opportunities they've had along the way.

WISE would like to thank the following people for serving as panelists. Additionally, we thank Alcoa, a program sponsor, for providing three very helpful and enthusiastic panelists. Cherlyn Foster (Alcoa), Cynthia Krist (Alcoa), Sandra Madison (Alcoa), Carlie Etscheidt (UIHC Cancer Center), Megan Laing (St.



Luke's Hospital), Katrina Cannon (UIHC Department of Internal Medicine), Amy Carroll-Collins (East Iowa Psychology Group), and Anne Freet (Integrated DNA Technologies).

WISE

Learning Community

Another Hot Night at Buffalo WildWings!

WISE LC Women enjoyed several hundred spicy wings (yes, that's right) at Buffalo WildWings on one of the crummiest nights in February. Rain, sleet, hail nor gale force winds could keep the LC Women from their appointed rounds, however!

While cold on the outside, we all got pretty warm on the inside after tackling multitudes of wings and yummy potato wedges. Add a large portion of laughter and good cheer and the result was a good time for all!



Quotes:

"I have a super awesome roommate (in the WISE LC). We compliment each other academically and socially and it rocks!"

"The best thing (about living in the WISE LC) is being able to go to anyone for help because we are all in the same type of classes, and there are also sophomores who have already taken the class that can help. Great friends come from learning from each other."

"Living in the WISE LC has allowed me to create friendships with people with common goals about their studies. It also has been a ton of fun!"

Learning Community Outreach Program

As part of the WISE Learning Community (LC), residents have many opportunities to interact academically and socially with their LC peers as well as with other UI students and faculty. These interactions facilitate learning and are also meant to be a source of motivation and inspiration during the rigors of the first-year experience at Iowa.

We ask LC residents to extend their first-year experience by sharing their knowledge, in the form of a short presentation and discussion, with young women in their home schools (young men can be included too!).

Presentations may focus on their experiences in the WISE Learning Community or just what it's like to pursue a major in science, technology, engineering, or math (STEM) at a large university like the UI. We know that one of the messages that is imperative for young women to hear is the importance of staying in math and science classes throughout high school. We believe that our WISE Women, already successful for reaching the UI as STEM majors, will provide needed encouragement to other young women considering careers in STEM fields and, as representatives from their home schools, they will be especially powerful role-models.

Participating in the WISE LC Outreach Program is a GREAT way for residents to showcase their communication skills, share their college transition experiences, provide opportunities for young women in their home schools to see them as positive role-models, and for all concerned to be proud that they are **"SUCCESSFUL WOMEN IN SCIENCE and ENGINEERING."**

OUTSIDE the Box Career Conference: Explore and Dream New Possibilities

WISE Ambassadors and graduate students Emily Thomas, Chemical Engineering, and Adina Chuang, Environmental Engineering, each gave presentations at a career conference for girls on March 27, 2007. The conference took place at Mid-Prairie Middle School in Kalona, IA, where fifty Mid-Prairie Middle School girls learned about science and scientific careers from professionals in the local area. The career conference was organized by Mid-Prairie Middle school teachers Amber Bridge and Terra Huber. Other presenters included Dr. Lori Beireis, Mercy Hospital; Dr. Julie Lindower, St. Luke's

Hospital; Archeologist Cheri Haury-Artz, University of Iowa; and Geneticist Amanda Ferguson, Genetics Research, University of Iowa. The WISE Ambassadors, who were the only student presenters, made our department proud by displaying a level of professionalism and enthusiasm that was equal to their very accomplished co-presenters. WISE is very appreciative to Emily Thomas and Adina Chuang for their dedication to encouraging young women to pursue careers in science and engineering fields.

WISE

AMBASSADORS

Girl Scout Badge Day

On February 18, the WISE Ambassadors coordinated a day of fun and learning for local Girl Scouts ranging in age from 10 to 12 years old. The scouts were exposed to six different science-based activities from a variety of science fields. WISE Ambassador Emily Thomas presented a chemical reaction activity in which the girls made their own silly putty. Cori Thompson and Sarah Minner conducted an activity that explained the effect of cardio activity on pulse and heart rate; Maureen Naughton and Kendra Meyer taught the Girl Scouts emergency preparedness and how to build a first-aid kit; and Courtney Smith's, Courtney Fleenor's, and Wesley Pollpeter's activity explained the negative effects of loud music on the ear drum. WISE Ambassadors Erin Wymore and Megan Kinen were the Masters of Ceremony. Areeba Fatima performed administrative and general event duties and Courtney Fleenor stepped up to the plate as photographer. Surrounding the activities were presentations by two guests speakers. Iowa City Firefighter Jim Humston gave a very informative presentation on general fire safety and Professor Linda Boyle gave an interesting and insightful slide show on the many different engineering fields open for study. By all accounts, the Girl



Scouts learned a lot and had a lot of fun during the afternoon. Some of their comments included: "Fun!!!", "I thought you all did a great job" and "Are you doing this next year?" The WISE Ambassadors were instrumental in making this event happen and their dedication and willingness to volunteer their time is most appreciated. Great job, Ambassadors!

Join the WISE Ambassadors

WISE is recruiting students to join the Ambassadors for the 2007-2008 academic year! The WISE Ambassadors are a team of both graduate and undergraduate students in sciences, technology, engineering, and math (STEM) majors 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 Ambassadors, and the WISE office aids their efforts by providing an annual budget, resources, and support. Things to look forward to for the 07-08 year: a fun fall retreat, Girl Scout Badge Day, K-12 outreach projects and presentations, and tours of companies and organizations! Contact wise@uiowa.edu for more information and to get on the mailing list for next year!

WISE Ambassadors Organize a Tour of the Holden Comprehensive Cancer Center

On February 2, a group of students from various healthcare majors were led on a tour of the UIHC Holden Comprehensive Cancer Center by HR Representative Mary Jo Cooper. Participants had an opportunity to learn from two Clinical Research Coordinators (Pamela Zehr, Carlie Etscheidt), and a Nurse (Alice Cox) and Radiation Therapist (Dolly Chesnut) from the Department of Radiation Oncology. The event was organized and coordinated by Ambassador Erin Wymore, a junior in Health Promotion. Great job, Erin!

Women in STEM earn between 68¢ and 89¢ for every \$1.00 earned by a man, depending on the field. (U.S. Department of Labor, Bureau of Labor Statistics, 2002)

More than 25% of HS math teachers & nearly 50% of HS science teachers lack even a minor in their in their main teaching field. (National Commission on Mathematics and Science Teaching for the 21st Century in Before It's Too Late: A Report to the Nation, 2000)

WISE-WIDE Activities

Lunch & Conversation with Barbara Sines, VP and General Manager, Information Platforms Business, Automation Control and Information Group, Rockwell Automation.

On Thursday, March 1st WISE and SWE (Society of Women Engineers) had the privilege of hosting a luncheon with UI Engineering alum Barbara Sines. It proved to be a great opportunity for 19 women in engineering to ask questions about life after college, life as a successful engineer, life as a wife and mother, and any topic in between. Barb is a fantastic role-model and we are so happy she chose to share her wealth of experience with our WISE Women. A big thank you to the College of Engineering for providing the wonderful food, too!

Lunch & Conversation with Helen Quinn, Professor of Physics and Faculty Chair, Education & Outreach Manager, Stanford Linear Accelerator (SLAC), Stanford University and member of the National Academy of Science.

Sixteen UI Physics & Astronomy students took advantage of the opportunity to share lunch with renowned physicist Helen Quinn on Monday, February 26. Dr. Quinn talked about her path to success, which was not the usual linear academic career path, and answered questions about the road less traveled, balancing career and family, and being true to one's self. It was an inspiring hour and we thank Dr. Quinn for giving us her time and expertise.

Sunshine, Hamburgers, and Bingo at the End of Year Picnic

WISE Undergraduate Programs hosted an end of year celebration for all students involved in WISE programming, including the Peer Mentoring Program, Learning Community, Tutoring, and Ambassadors. The event was held on Sunday, April 15, at Lower City Park. With the sun shining and the temperature above 60 for the first time in weeks, over 30 people showed up for burgers, hot dogs, junk food, conversation, and games. Bingo, the beanbag toss, frisbees, football, and kite-flying helped us burn off all the delicious potluck food. Kelsey Montross, WISE Mentoring Assistant, coordinated the event along with five mentors. Great job, everyone! We'll see you next year!



From Cookies to Med School

Following suit from last semester, the WISE Program has hosted some very successful activities that are open to all students in science, technology, engineering, and math majors. First, On February 11, Kelsey Montross, trust WISE assistant, organized a Valentines Day cookie-decorating party in the 3rd floor Stanley lounge. In all over 20 people participated – men and women. With over 100 cookies and endless decorations – we made some tasty and beautiful treats! The cookies that were not consumed by WISE students were donated to a local Relay for Life team to sell at a fundraiser.



On February 12, WISE hosted an 'Applying to Med School' seminar and free Jimmy John's dinner in the Pappajohn Business Building. Cathy Solow, Assistant Dean and Director of Admissions for the Carver College of Medicine, along with three current medical students (Lyndsay Harshman, Beth Aunan, Carmen Halabi), discussed how undergraduate students can best prepare for a future in medicine. The medical students also discussed their personal experiences studying and taking the MCAT, applying to med schools, and living the med student life. It was a great evening!

To learn more about these activities or to receive announcements about future WISE seminars and events, please contact wise@uiowa.edu.

Congratulations to three-year WISE office assistant, Adrienne Lum Frederick, who will be awarded her BA in Political Science this month!

We wish her the best of luck as she heads out to work as a field organizer for Chris Dodd's presidential campaign. Adrienne, you will always be a WISE Woman!

"Sex role stereotypes provide the SHOULDs for much of our behavior and, for this reason, have limited the possibilities for both men and women." (Diane Halpern, Ph.D., Sex Differences in Cognitive Abilities, 2001)

Spring Grad/Post-Doc Workshops Continue to Address Needed Issues

This spring three programs were offered as part of WISE's graduate/post-doctoral professional development workshop series:

- Effectively Responding to Reviewer Comments
- Developing a Research Statement in the Sciences and Engineering
- Negotiating Your First Tenure-Track Faculty Position in the Sciences and Engineering

The final spring program was a great success, with participation filled within 48 hours of its first advertising. The topic of negotiating a first position is an important one for all aspiring academics. The WISE program goes one step further, addressing specifically the issues that affect women in negotiating their first position. The program combined research in gender differences, first-hand experiences from tenured women faculty, and hands-on experience for participants to draft and discuss start-up proposals.

The workshops are designed to address issues that may not normally be covered as part of an academic program. As stated by one participant of the Research Statement program, "no one has ever told me about Research Statements for my career so I felt [attending] this was vital for my future job searches, whether in academia or industry." The small-group setting (usually no more than 16 participants) allows for significant interaction between participants and facilitators. The small group also allows participants to feel comfortable sharing any questions or concerns they have, receiving feedback from both their peers and the facilitators.

For more information about the grad/post-doc workshop series, or to be added to the email distribution list for fall 2007, please email Tess Barker at maria-barker@uiowa.edu.



Special Thanks to Our Grad/Post-Doc Professional Development Workshop Series Presenters!

John Achrazoglou
Director, Education Technology Center,
College of Education

Rebecca Anthony
Director, Educational Placement Office,
College of Education

Cinda Coggins Mosher
Lecturer, Department of Rhetoric,
College of Liberal Arts and Science

Carolyn Colvin
Associate Dean for Academic Affairs and
Graduate Programs, College of Education

Deborah Dawson
Director of Biostatistics,
College of Dentistry; Professor, Preventive and
Community Dentistry, and Biostatistics

Gerene Denning
Research Scientist, Emergency Medicine and
Assistant Director, WISE

Jennifer Glass
Professor, Department of Sociology,
College of Liberal Arts and Sciences

Ben Mosher
MFA Grant Writer and Tate High School
English Teacher

Chris Peterson Brus
Director, Women in Science and Engineering
(WISE) Program

Your Continued Support is Much Appreciated!

Promoting Women: Gabor Rossmann - European Molecular Biology Org., Vol. 3, No. 1, 2002

Women are often appreciated by their superiors as being reliable, positive, and more willing to take over additional tasks. Women often feel this is to their disadvantage when they are discouraged or even prevented from moving to higher positions because their superiors fear losing a valuable worker.

Many superiors assume their female employees will leave or at least reduce their hours when they start a family and are therefore less inclined to support their further education and qualification.

"As a mother I have to prove that I haven't given away my brain after the birth of my daughter. I cannot talk about my children, because I would then be regarded as fixated on my family. I cannot talk about problems with childcare because it would raise the impression that I am not able to manage my private life."

Dr. Eunice Beam WISE Travel Grant Program

New Criteria

The success of the WISE Travel Grant program, and the rising number of applications received, has made it 'wise' to tighten the criteria we use to accept and rate applicants' materials. These new criteria and the accompanying new application form will be in effect for the fall 2007 funding cycle. For more information, including the complete eligibility requirements, go to the WISE website: www.uiowa.edu/~wise

To be eligible for a WISE Travel Grant you must:

- Be a female doctoral student at the University of Iowa (Ph.D. track) in one of the WISE target departments (see WISE website for list)
- Have been notified of your acceptance to give an oral presentation (10 minutes or longer) at a national or international conference/symposium, chosen competitively.

PLEASE NOTE: Poster presentations are not eligible to receive funding through this program!

Preference will be given to applicants who:

- Submit a full paper or a copy of their PowerPoint slides with their application.
- Are listed as the first author on their abstract/paper.
- Are closer to their anticipated date of graduation.
- Have not previously received a WISE Travel Grant (especially during the current academic/fiscal year).

"This (ePortfolio) workshop was very good. The staff was very helpful and accommodating, fostering a very positive and motivating learning atmosphere."

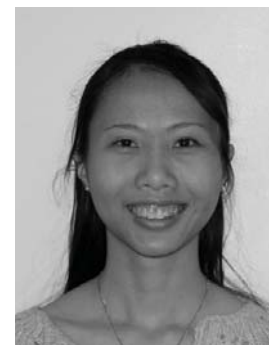
Three Doctoral Students supported by the Eunice Beam WISE Travel Grant Program

Disha Dayal of Delhi, India, a Radiation Oncology doctoral student in the College of Medicine, delivered an oral presentation, *Hydrogen Peroxide governs the level of radiation-induced genomic stability*, at the 13th Annual Meeting of the Society for Free Radicals in Biology and Medicine in Denver, Colorado, November 15-18, 2006.



Emily Lai of Branson, Missouri, an educational measurement and statistics doctoral student in the College of Education, delivered an oral presentation, *High stakes testing and test preparation: examining teacher beliefs and practices*, at the American Educational Research in Chicago, Illinois, April 9-13, 2007.

Siu Wah Wong-Deyrup an bioinorganic chemistry doctoral student in the College of Liberal Arts and Sciences, delivered an oral presentation, *DNA sequence selectivity and kinetic properties of the novo designed chimeric dimers: are two better than one?*, at the 2007 Gordon Research Conference in Ventura, California, February 1-4, 2007.



WISE Website

WISE has a new look online! Thanks to the solid work of Warren Staal, the Graduate Assistant for the Graduate College, we upgraded our old website – it is now more comprehensive, easily navigable, and up-to-date. Read the latest WISE news, view our resource library online, and read about our services and programming efforts for undergraduates, graduates, faculty/staff, K-12, and the community. Yes, it's comprehensive! <http://www.uiowa.edu/~wise>

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