

ADVANCE E-NEWS VOL. 1, NO. 10, 16 APRIL 2009

ADVANCE-Nebraska: Advancing women, advancing STEM

Please feel free to forward, opt out, or provide feedback via email to: advance2@unl.edu.

Visit ADVANCE-Nebraska online: <http://advance.unl.edu> (redesigned!)

Please forward any items (announcements, new or classic papers, funding and job opportunities) to advance2@unl.edu.

Thanks to all who contributed articles, information: Margaret Jacobs, Julia McQuillan, David Watkins, Ron Roeber and Donna Woudenberg.



A. Announcements

1. ADVANCE-Nebraska **Speaker Series**, Spring Semester 2009
April 29: Dr. Heidi Schellman, "No Daughter of Mine is Going to CalTech!"
Heidi is from Northwestern University and Fermi Labs: Paths to Success Luncheon (free).
REGISTRATION REQUIRED. Deadline April 27. Email advance2@unl.edu.
2. Steve Danielson will speak on Rachel Carson, Friday, April 17, Noon - 1:00 pm, 207 Hardin Hall (bring a brown-bag lunch)
3. ADVANCE-Nebraska's first Writing Retreat, week of August 10.
4. Lottery for new childcare center April 20
5. AWIS offers coaching tele-seminars
6. Graduate teaching internships offered for Women in Science courses, Women's & Gender Studies – deadline April 17
7. NIH to Fund 117 New Tenure-Track Positions
8. Congratulations to UNL SWE on winning the Chancellor's Award for Outstanding Contributions to Women!

B. New Papers on Work-Life Balance, Gender Equity, The Pipeline

1. Scientific evidence for benefits of breastfeeding for babies is sadly ambiguous
2. From Nature News: Neuroscience pioneer Rita Levi-Montalcini turns 100
3. The Anti-Mommy Bias
4. Need for Role Models and Mentors, by Mary Ann Mason, UC-Berkeley

C. Encouraging Girls to Become Scientists, Mathematicians, Engineers

1. Web Sites for girls
 2. Cascade Press offers books for Girls on Becoming a Scientist/Engineer
 3. More than half of participants at Chicago's 2009 Science Fair are Girls
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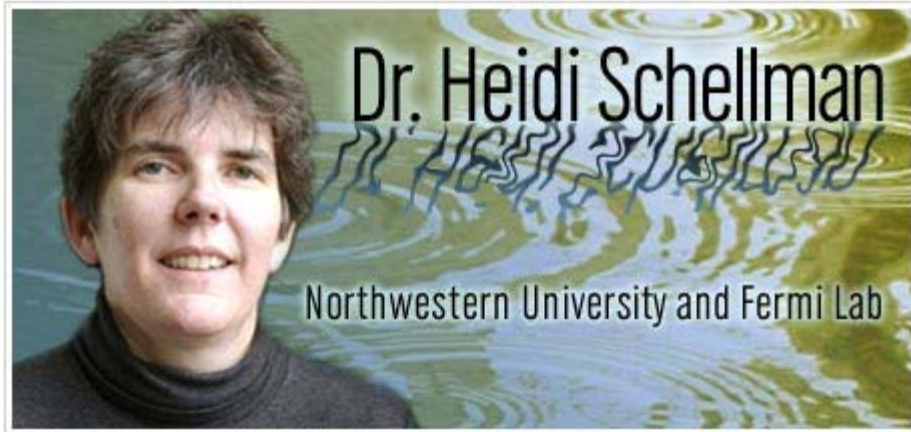
A. ANNOUNCEMENTS

1. ADVANCE-NEBRASKA **SPEAKER SERIES**, SPRING SEMESTER 2009

April 29: Dr. Heidi Schellman, "No Daughter of Mine is Going to CalTech!"

Come hear Dr. Schellman tell the tale of her mom's experience at CalTech and her own path to success in Physics.

Dr. Schellman is now at Northwestern University and Fermi Labs.
Paths to Success Luncheon (free). REGISTRATION REQUIRED. Deadline April 27. Email advance2@unl.edu.



2. STEVE DANIELSON WILL SPEAK ON RACHEL CARSON,

Friday, April 17, Noon - 1:00 pm, 207 Hardin Hall (bring a brown-bag lunch)
Steve will discuss Rachel Carson's life story in brief, with her publishing career that ended with *Silent Spring*, and discuss how that went. In addition, he will play a few minutes of a recording of a speech Carson made after the book was published.

3. ADVANCE-NEBRASKA WRITING RETREAT

Plans are in the works now for ADVANCE-Nebraska to host its first writing retreat, the week of August 10, 2009. We will convene in the Love Library, write for a day, then meet with writing coaches who can help you get through the bottlenecks to clear and effective writing. The rest of the week is devoted to writing. ADVANCE-Nebraska will supply the room, wireless, breakfast and lunch. This retreat will focus on paper-writing for publication, although grant-writing is ok, too!

Bring that data that's been sitting under that pile on your desk and get it out the door! Re-write and re-submit! For more information, contact advance2@unl.edu. We welcome suggestions in the next few weeks as we plan the retreat.

Collaborators from other institutions will be welcome. Some travel funds will be available for your collaborator(s).

4. LOTTERY FOR NEW CHILDCARE CENTER APRIL 20

Sliding-scale rates have been set and the new childcare facility in the North Annex of Wittier Hall will open for fall semester. For more information and to sign up for the lottery, visit the website below. We've seen the plans for the facility, and it is AWESOME!

<http://hr.unl.edu/er/childcare.shtml>

Contact info for Tish Roland, Childcare center Director:

<http://newsroom.unl.edu/releases/2009/04/01/UNL%27s+new+Children%27s+Center+taking+applications%2C+announces+rates>

5. AWIS COACHING TELE-SEMINARS

It's more important now than ever before to manage your career effectively. In May, the AWIS Coaching Program will offer a series of tele-seminars to help you do just that. Whether you want strategies for holding on to your job in a tough economic climate, tips for improving your networking or interviewing skills or tools you can use to communicate more effectively in a four-generation workplace, you'll find relevant, practical, ready-to-implement ideas in these programs:

- Networking Now - When Everyone is Looking: How To Be More Effective in the Current "Crowded" Marketplace, 5/7, 7 PM Eastern
- Effective Communication in a Four Generation Workplace, 5/14, 11 AM Eastern
- Impression Management for Interviews, 5/21, Noon Eastern and 7 PM Eastern
- How to Keep Your Job in a Tough Economic Climate, 5/28, Noon Eastern

Each program is available at a special discounted rate of only \$14.95 for AWIS members and \$19.95 for non-members. To learn more and register, [click here](#).

6. GRADUATE TEACHING INTERNSHIPS OFFERED FOR WOMEN IN SCIENCE COURSES, WOMEN'S & GENDER STUDIES

The Women's and Gender Studies program is offering a new opportunity, beginning in the fall of 2009, to enable interested graduate students to pursue a graduate teaching internship with the professors of WMNS 385 Women, Gender, and Science.

Graduate interns would work closely with Professors Donna Woudenberg and Patti Boehner to design a syllabus, choose readings, and develop assignments and exams. Graduate interns would be expected to attend all class sessions and to meet regularly with the professors to discuss the class. Graduate interns would also be expected to prepare and teach a limited number of class sessions, in consultation with the professors. Graduate interns would not be allowed to grade assignments but could read student papers, projects, and exams under supervision of the professors in order to discuss evaluation of student work.

Interns would keep a teaching/observation journal to be submitted to the professors at regular intervals. Professors might also require interns to complete additional readings or a paper.

Interns would receive 3 credit hours by enrolling in WMNS 897.

Only two internships are available in the fall. If you are interested, please email Margaret Jacobs (mjacobs3@unl.edu) by April 17, 2009.

7. NIH TO FUND 117 NEW TENURE-TRACK POSITIONS

These awards, funded by the Stimulus Bill, will also provide lab startup packages for up to two years. The P30 mechanism used for the competitive grant program—labeled "Biomedical Research Core Centers to Enhance Research Resources" is a bit obscure and a re-working of existing program P30. This was a faster way to get the funds out the door than setting up a whole new program.

<http://www.sciencemag.org/cgi/reprint/324/5923/27a.pdf>

See links to application process at NIH website:

http://www.nigms.nih.gov/About/Director/berg_03262009.htm

8. CONGRATULATIONS TO UNL SWE ON WINNING THE CHANCELLOR'S AWARD FOR OUTSTANDING CONTRIBUTIONS TO WOMEN!

The Chancellor's Commission on the Status of Women (CCSW) selected the student chapter of the Society for Women in Engineering for the organization to receive the Chancellor's award March 10.

SWE's president, Ericka Amborn, said they would use the financial award to continue their successful annual event, "Women Interested in Engineering Day". The event is held in Othmer Hall, usually in September. Registration for 2009's event will open in August.

<http://www.wiie.unl.edu/index.shtml>

B. NEW PAPERS ON WORK-LIFE BALANCE, GENDER EQUITY, THE PIPELINE

1. SCIENTIFIC EVIDENCE FOR BENEFITS OF BREASTFEEDING FOR BABIES IS SADLY AMBIGUOUS

Breastfeeding appears to add one antibody to the GI tract of newborns, IgA, which never enters the bloodstream. All other antibodies in the bloodstream of newborns are obtained through the placenta. The added antibody, in one Belarus study, equated to about four out of 100 babies having one less incident of diarrhea or vomiting.

This is what Hanna Rosin, in an evocative article in this month's *Atlantic Monthly*, discovered on the science of the effects of breastfeeding on child development. The American Academy of Pediatrics recommended in 1997 that babies be exclusively breastfed for six months and partially for another six. Rosin is the mother of three breastfed children. She happened upon an article in the *Journal of the American Medical Association* on the outcomes of breastfeeding on childhood obesity and was stunned to find the results are "inconsistent". She subsequently reviewed articles in the primary literature on the benefits of breastfeeding.

"The Medical Literature looks nothing like the Popular Literature"

One of the principal difficulties in testing the benefits and best duration of breastfeeding is the lack of controlled experiments, for obvious reasons. In addition, it is difficult to factor out "confounding factors" such as level of education of the mother, whether she smoked, her age, her income, number of other children, whether this was a one- or two-parent family. A typical study by Horwood and Ferguson of more than 1,000 New Zealand school age children (*Pediatrics*, vol 101, no. 1), found that babies breastfed for ≥ 8 months were 0.35 to 0.59 standard deviation units (SD) higher on test scores up to the age of 18. But correcting for "confounding factors" reduced that difference to 0.11 to 0.30 SD. And is it the breast milk or the mother-baby interaction?

"The studies do not demonstrate a universal phenomenon, in which one method is superior to another in all instances," concluded one of the first, and still one of the broadest, meta studies, in a 1984 issue of *Pediatrics*, "and they do not support making a mother feel that she is doing psychological harm to her child if she is unable or unwilling to breastfeed", Rosin writes.

Rosin concludes: Given what we know so far, it seems reasonable to put breast-feeding's health benefits on the plus side of the ledger and other things—modesty, independence, career, sanity—on the minus side, and then tally them up and make a decision."

<http://www.theatlantic.com/doc/200904/case-against-breastfeeding>

2. FROM *NATURE NEWS*: NEUROSCIENCE PIONEER RITA LEVI-MONTALCINI TURNS 100

Fascinating article about the life and career of Rita Levi-Montalcini, who will turn 100 years old on April 22. Now a senator in the Italian parliament, she discovered Nerve Growth Factor (NGF) while working in her homemade lab after all Jews were expelled from Italian universities by Mussolini. She worked on fresh eggs from the neighborhood, using tiny scalpels she constructed from sewing needles, and deduced that some invisible factor helped nerves grow from the spinal nerve cord to extremities (in this case, chicken wings) during fetal development. Her hypothesis was not well-received. Her only PhD student, Ruth Hogue Angeletti, determined the structure of the protein in 1971, almost 20 years after Levi-Montalcini's hypothesis, using one of the first automated protein sequencers, and this convinced the last remaining skeptics.

Levi-Montalcini won the Nobel Prize in 1986 with colleague Stanley Cohen of the University of Washington in St. Louis, where Levi-Montalcini spent 26 years of her career. On April 22, she will become the first Nobel laureate to live to 100.

<http://www.nature.com/news/2009/090401/full/458564a.html>

3. THE ANTI-MOMMY BIAS

When Pennsylvania Governor Ed Rendell said that Governor Janet Napolitano was a great choice for Homeland Security Secretary because, as a childless woman, she has no life and can devote "19-20 hours a day to" the new job, the NY Times noticed that there is an anti-mother bias in our culture that assumes that moms are less dedicated to their jobs:

<http://economix.blogs.nytimes.com/2009/03/26/family-responsibility-discrimination-would-ayn-like-fred/>

We appreciate this acknowledgement. A thorough study of this phenomenon was released in 2007 by Shelley Correll and co-workers from Cornell. Among their findings, when study participants evaluated **identical** applications for a professional job:

- ◎ Evaluators rated mothers as less competent and less committed to paid work than nonmothers.
- ◎ Mothers were less likely to be recommended for hire, promotion, and management, and were offered lower starting salaries than nonmothers.
- ◎ Prospective employers called mothers back about half as often as nonmothers.

It's worth repeating: the investigators made up one c.v. and changed one item to make a second copy: an identifier that one c.v. was from a mom while the other had no such identifier. The study subjects disadvantaged the moms at every step in the application, hiring, and promotion process.

Correll, Benard and Paik (2007) *American Journal of Sociology*, 112 (5), 1297-1338.

Find the paper at: <http://www.journals.uchicago.edu/doi/pdf/10.1086/511799>

In an allied story, a former postdoc in physics at SUNY-Stony Brook won a settlement for gender bias: her faculty supervisor denied her maternity leave and told her that she had to return to work within days of giving birth (in 2003). The American Association of University Women supported the postdoc in her lawsuit. Interestingly, the postdoc and her advisor work at Fermi Labs.

Come and hear Heidi Schellman talk about that experience on April 29!

And just found: The Wall Street Journal reports that a recent study by the nonprofit Families and Work Institute in New York found that young women have similar career ambitions whether they have children or not. In addition, men of all ages reported a higher level of work-family conflict than women (!).

<http://online.wsj.com/article/SB123801512551141207.html>

One more word on the topic from our own Julia McQuillan: In a study of 2,519 women in the U.S. aged 25-45, she and her co-workers found that mothers and non-mothers value work success equally; non-mothers place greater value on leisure time than mothers.

From her recent pub: <http://digitalcommons.unl.edu/bosrfacpub/7/>

4. NEED FOR ROLE MODELS AND MENTORS, BY MARY ANN MASON, UC-BERKELEY

Mason and co-workers surveyed 8,000 doctoral students across all disciplines in the U-California system and discovered that the fewer female professors with children that women students see, the less likely they are to view tenure-track faculty careers at research universities as family friendly. Only 12% of all students surveyed viewed research universities as family-friendly.

<http://chronicle.com/jobs/news/2009/03/2009032501c.htm>

C. ENCOURAGING GIRLS TO BECOME SCIENTISTS, MATHEMATICIANS, ENGINEERS

1. WEBSITES FOR GIRLS

From the National Academy of Sciences:

The National Academies also co-publishes a book series (and associated website) called "Women's Adventures in Science" that's aimed at middle-school-aged students: <http://www.iwaswondering.org/>

Also from the National Academy of Sciences: Engineer Girl

<http://www.engineergirl.org/>

2. CASCADE PRESS OFFERS BOOKS FOR GIRLS ON BECOMING A SCIENTIST/ENGINEER

Among the offerings: "You Can Be a Woman Engineer", "Paleontologist", "Marine Biologist", "Egyptologist", "Oceanographer". The books are also available in Spanish.

<http://www.cascadepass.com/brochure.html>

3. MORE THAN HALF OF PARTICIPANTS AT CHICAGO'S 2009 SCIENCE FAIR ARE GIRLS

Chicago Public Schools' 57th Science Fair held at the Museum of Science and Industry had 179 girls qualify out of 307 participants (58%). Participants are more diverse racially and ethnically than in past years as well.

<http://www.chicagotribune.com/news/local/chi-science-girls-intro-28-mar28,0,4516525.story>