**The New Mexico Network for Women in Science and Engineering****News from the New Mexico Network for Women in Science and Engineering Spring 2008****Special points of interest:**

- **Science Stars!** pg. 3
- **IMPACT! Award** pg. 6
- **Student Awards** pg. 6



Find out about oceanography and more in our Careers book!

nmnwse.org/careers

See page 12!

Annual Meeting and Technical Symposium to be Held at the Sierra Grande Lodge & Spa in Truth or Consequences

Mark your calendars! The 2008 NMNWSE Annual Meeting and Technical Symposium will be held Friday-Sunday 24-26 October 2008 at the Sierra Grande Lodge and Spa in Truth or Consequences, NM. This is a really exciting networking event in a beautiful venue.

The meeting will begin with a networking reception on Friday evening. On Saturday,

we begin the day with the Network business meeting in the morning. After a break for lunch, we then have a series of oral and poster technical presentations in the afternoon. This is a particularly great opportunity for students or young professionals to practice giving a technical talk and/or to share your technical interests with

(Continued on page 13)



The Sierra Grande Lodge in Truth or Consequences.

What: Annual Meeting and Technical Symposium
When: 24-26 October 2008
Where: Sierra Grande Lodge, Truth or Consequences
Contacts: torresbw@aol.com
ctburch@unm.edu
mellburk@yahoo.com

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• Diane Albert

Diane was one of 22 attorneys selected to the 2008 class of the NM State Bar's 2008 Pamela Minzner Leadership Training Institute. Please see

www.nmbar.org/Attorneys/lawpubs/leadership08.pdf

She was also one of three winners of the 2006-2007 Student Writing Competitions. She won the Helen S. Carter prize for the paper entitled "Government-funded Software: Should it Reside in the Public Domain or be Owned by its Private Contractor Creators?"

• Claudia Baretto

"Tail Wagging Tutors"

What do you get when you bring children, dogs and books together? Based on studies, you get happy, confident children who love to read. That's what we're hoping to achieve this

(Continued on page 5)



President's Corner — Elizabeth M. Kallman



Elizabeth M. Kallman

Science Fairs. For me, those words often bring to mind memories of the participation in my very first science fair. The title of my project was “The Effect of Acid Rain on Plant Growth”. The project was simple, but, I thought, clear and easy to understand. I stayed up nearly all night before the big day, working on last minute preparations and going over my notes. I remember being so excited and nervous on the day of the science fair, and how I got to the school gym early to set up my display. While I don’t remember all of the judges who came to talk to me, I do, however, distinctly remember one female judge in particular. I don’t remember her exact words, but I do know that she was very interested in my project, and she asked me many questions as she looked at me intently. At the end of the day, I was exhausted and relieved that the day that I had anticipated for so long was finally, unbelievably, over. Then it was time for awards. Not expecting anything, I was absolutely shocked and overjoyed to find out that I had won a ribbon! It is amazing to me now how such a seemingly little thing as a ribbon and an award made such a huge impact on my then life of twelve years!

Science Fairs. Another memory that these words brings to mind is the first time that I volunteered to judge a science fair. Rather than the projects which I judged, I vividly remember my fellow judges. It was during my graduate school years, when I was done with coursework and was interning at Los Alamos. Like many graduate students who become intensely engrossed in their work, it dawned on me one day that outside of spending time with a few close friends, I hadn’t really taken the time to get out of the house for months! That very same day, I got an email from Tinka Gammel on the NMNWSE email list, looking for volunteers to judge in the NMNWSE special awards category at the upcoming science fair, to be held in the gym at the local middle school. I replied that I would like to volunteer. Tinka said that she would be meeting me and someone named Diane Albert at the front of the gym. I had never met them before. We were to judge the projects the evening before the displays would also be open to the public. On the eve of the judging, I remember again, feeling excited but also a little nervous : I had never judged a science fair before! I remember that Tinka was warm and took the time to carefully explain to me how the judging process worked. Diane Albert gave me her business card

and chatted enthusiastically with me about what life was like in Washington D.C., where she had spent some time during her career. I was in awe and was also inspired to see how driven they were about the Network and how committed they were to women in science and engineering.

Science Fairs. “Wait a second, why am I driving down to Socorro after just a few hours of sleep at the break of dawn on a weekend?” I thought to myself as I raced down the freeway April 2008 to help judge in the NMNWSE awards category at the State Science Fair at New Mexico Tech. Rather than bother to contemplate an answer, I just took another sip of coffee. I met up with the other NMNWSE members and friends in Socorro, and, given a list of projects to judge, set out to look at the displays and later, to talk to the girls. I made it a point to talk to every single girl on my list. Later in the day, after we reconvened, debated, and decided on the awards, and then had our Board meeting, Tinka and I went back to the main building to give our awards to the head judges to be presented to the girls that evening. On our way into the elevator with our boxes of tote bags in hand, an anonymous woman excitedly ran up to us [I may be paraphrasing, but only

slightly]: “Excuse me, excuse me, are you with the New Mexico Network for Women in Science and Engineering?” I replied that we were. “I just wanted to thank you for supporting my daughter ever since she was in the seventh grade. You have made such a difference. We have one of your tote bags and every time we use it we think of you. Thank you so much.” We said that she was welcome. I never found out her name, because then the elevator door closed. Tinka and I marveled at how much her words, in fact, meant to us. And as the elevator ascended, I thought, for how many young women have we made a difference? How far indeed have the ripples spread? And as I was later driving back home to Albuquerque, I thought that, yes, this is why I am doing this, this is why I gave up my sleep and my one day of the weekend. This one moment made it all worthwhile and more.



Science Stars!



**Los Alamos
National Bank**

Creating a better way.

IMPACT!

Nominees for the **IMPACT!**

Award must be received by

August 15th, 2008.

Please visit

nmnwse.org/ImpactAward

for more information.

Please see page 6 in this

newsletter!

Los Alamos Women in Science
The Northern Chapter of the New Mexico Network
for Women in Science and Engineering
Announces



Science Stars



A new program to recognize and encourage
outstanding science students!

Awards will be given quarterly (Fall, Winter and Spring)
8th-10th grade students in Los Alamos/Santa Fe/Rio Arriba
counties are eligible

Teachers! Send e-mail to wb@lanl.gov to receive an
enrollment form



The Central EYH was held March 15, 2008 at Dane Smith Hall on the UNM campus. There were 132 students and 40 adults pre-registered.

The keynote address was by Betsy James, an author of children's books. Sandia National Laboratories paid the honorarium for Ms. James.

Central EYH

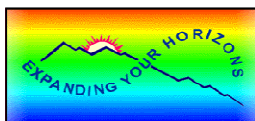
— Kelly Collins

The workshops included titles such as:

- How to Hold a Porcupine and Other Zoo Stories
- Building (and Breaking) bridges!
- How Glass Breaks (in case there really is a ceiling)
- The Atoms Family - An Introduction to Nuclear Science
- Will Your Own Indy Car Win a Race?
- CSI: DNA Seeing in the Dark: The Science of Infrared Technology
- Count Like an Egyptian



Northern Chapter EYH 2008 Report — Wendee Brunish



"I really enjoyed the keynote speaker and she made me want to pursue a lot of my interests."

*—Student from
Pojoaque Valley
High School*



"...three of our presenters said that they enjoyed the experience so much that not only would they like to participate again next year but that they would like to join the organizing committee..."

Our Expanding Your Horizons Conference was held on April 2, 2008 at UNM-LA. Our local sponsors included LANS, LANL, UNM-LA, and SAIC, and together they provided over \$12K in funding to make the conference a success. Key members of the planning committee were Lisa Colletti, Jutta Kayser, Marilyn Minshall, Georgia Pedicini and Aviva Sussman. The Teachers' Conference was organized by Mary Campbell and Scott Robbins.

120 young women from 15 schools, including Pecos, Penasco, and Pojoaque attended, and 18 teachers and counselors took part in the teachers' conference. We even had several participants (students and teachers) who drove all the way from Cloudcroft to attend. (We would have had over 150 students but at the last minute 21 girls from Mora were unable to attend, and attendance from Los Alamos Public Schools was down from 20 to 6 due to the timing of spring break.) After an absence of several years, we had several participants from the New Mexico School for the Deaf. Here is the note that we received from NMSD teacher Laurie Guggenheim the day after the conference.

"I felt that our students got a LOT out of yesterday's experience—it seemed that there was unique information that applied to each student's

individual interests. The entire day was fantastic—the spirit, team-building activity, keynote speaker, and the workshops. We attended the Vet and DNA talks, both of which had GREAT hands-on projects! I look forward to going through the CD and other information that was provided. Thank you so much!"

We offered 14 science workshops this year and each student attended two of them. In addition to the science workshops, the students participated in a team-building activity in the morning. The students built bridges out of balsa wood, and the winning team's bridge supported an astonishing 67.5 pounds. Our keynote speaker, Abigail Sussman, talked about her early awakening of interest in science as a researcher in Alaska and about her current work doing environmental preservation as a park ranger in the Cascades. Many of the girls cited the keynote address as a highlight of the day. One student from Pojoaque Valley High School was very inspired – her evaluation form said the following:

Something valuable I gained today...

"I really enjoyed the keynote speaker and she made me want to pursue a lot of my interests"

Now I need to...

"go to Alaska!"

We concluded the day with a round robin of science demos, including a demonstration by the bomb squad, "alka-seltzer" rockets launched by the Air Force, computer-programmable robots designed by workshop presenter Jan Frigo, and a chance to meet snakes and lizards from the Wildlife Center in Espanola. A great picture of one of the girls getting to know a bull snake appeared on the front page of the Los Alamos Monitor.

The day was a great success. But two additional things made it especially gratifying for those of us on the planning committee. The first is that many of the girls said that in addition to having fun and learning about science, the best part of the day was "making new friends" and "gaining confidence". What a great opportunity we are giving these girls to truly "expand their horizons". The second great thing was that three of our presenters said that they enjoyed the experience so much that not only would they like to participate again next year but that they would like to join the organizing committee and help with the planning for next year's conference.

So, for now, we are breathing a deep sigh and catching up on our sleep, but soon we will be looking forward to next year and starting our planning efforts again.



Individual Highlights continued.

(Continued from page 1)

summer at the Belen Public Library. Claudia Barreto and her therapy dogs, Nestor and Miracle, will be launching a reading program this summer. Nestor and Miracle are certified through Therapy Dog International, Inc. Research has demonstrated that when children are having trouble learning to read, if they read out loud in a non-threatening environment they can improve their reading skills significantly. A non-threatening environment can be reading to a dog. A dog is non-judgmental and a child develops a special bond with the dog. The children also learn to enjoy reading so they keep up their skills.

If you know of any parents who may be interested in enrolling their children in the program please contact Library Director, Bev McFarland: beverly.mcfarland@belen-nm.gov or call 864-7522

To learn more about the benefits of children reading to dogs please see:

www.tdi-dog.org/childrenreadingtodogs.htm

www.cbsnews.com/stories/2006/01/13/earlyshow/contributors/debbyeturner_main1208443.shtml



Geologist Pam Pinson and drillers at a drilling site. Find out more in the Careers Book!

nmnwse.org/careers

- **Lisa Colletti**

Lisa was promoted to team leader of the Plutonium Assay Team in C-AAC in January. She has received (or will soon receive), as part of a team, two pollution prevention awards. She has also had an abstract accepted for the Institute of Nuclear Materials Management 49th annual meeting in July. This requires a submitted paper for publication in June to the Institute.

- **Jutta Kayser**

"I am a volunteer in the Big Brothers Big Sisters (BBBS) Lunch Buddy Program of Northern New Mexico. I learned that my current lunch buddy is failing in some of her classes, especially in reading. Normally, I meet with her once a week, but now I have decided to dedicate a total of two days a week to help her improve her reading skills. Also, together with BBBS, I am trying to ensure my buddy attends summer school this year. However, this takes some action on the school counselor's part and negotiations with my buddy's mom - I have initiated all these actions. Since I will continue the lunch buddy relationship next school year as well, I hope to get my buddy up to par in all classes."

"I have decided to dedicate a total of 2 days a week [with my lunch buddy] to help her improve her reading skills"

—Jutta Kayser

- **Dr. Elizabeth M. Kallman**

Elizabeth was granted a research and development award for High Performance Computing for 2008 and is now a Principal Investigator and Program Manager (R&D).

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IMPACT!

The NM Network for Women in Science & Engineering Award



NM Commission on the Status of Women

*Nominations for the
IMPACT! Award are due*

Friday, 15 August 2008.

*Nominees do not need to
be members of NMNWSE.*

*Get your nominations in
early!*

IMPACT! Award Nominations Sought

NMNWSE, in cooperation with the NM Commission on the Status of Women, seeks nominations for the second Annual **IMPACT!** Award.

The award will recognize a New Mexico woman for her extraordinary efforts in encouraging women to enter into and develop their careers in science and engineering professions.

"Last year was the first year for the IMPACT! Award. We are hoping for even more participation this year. This Award seeks to recognize women from around the state who have been actively involved in edu-

cational outreach, re-entry programs, networking and/or mentoring, and who have otherwise encouraged or promoted equal participation by women in science and engineering will be nominated for our award," states Nancy Weinbrenner, Award Chair for the NMNWSE Board.

Nominees do not need to be members of NMNWSE and, for the purposes of the award, the category "science and engineering" includes mathematics and all engineering fields as well as physical, biological, behavioral, medical and social sciences, and related technical

fields.

Please visit the NMNWSE **IMPACT!** Award webpage at nmnwse.org/ImpactAward

for more information and an application. Nominations for the 2008 Award must be received by the Commission by **Friday, 15 August 2008**.

The honoree will be recognized during the Network's Annual Meeting and Technical Symposium, which this year will be held **24-26 October 2008** at the beautiful Sierra Grande Lodge and Spa in Truth or Consequences, New Mexico.

Student Awards

Los Alamos Science Fair

Los Alamos, New Mexico

Jan 26, 2008

**Judges: LAWIS members Emily Schultz-Fellenz and
Chandra Savage Marsden**

Awardees:

- 1st place: Paulina Majewski, LA Middle School, for "Iron Corrosion"

(Continued on page 7)



Student Awards, continued.

(Continued from page 6)

- 2nd place: Amy Grothaus, Chamisa, for "Caffeinated Concentration"
- 3rd place: Emily Pittman, Mountain, for "Do Dogs Vary in Intelligence?"
- Honorable Mention: Ariel Koh, Mountain, for "Onion Warriors"
- Honorable Mention: Lauren TenCate, Pinon, for "Breaking Waves"

All the winners received certificates and science flashcards, and the 1st-3rd place winners received monetary awards.

6th Annual CENAC Science Fair

Grades 5-8

Santa Fe, New Mexico

Jan 31, 2008

Judges: Betsy Frederick, Celia Einhorn, and Paige Prescott

Awardees:

- Traditional Skin Care- Felice Espinoza, Teresina Trujillo, Angel Strange Owl, Taos Day School
\$20 each.
- When Lightning Strikes- LaCrisha Cuaron, Isleta Elementary, \$20.
- Which Food Drying Method Works Best?- Taylor Jojola, Isleta Elementary, \$20.

A tote bag with career materials was given to the teacher mentoring the projects.

(Continued on page 8)



Student Awards, continued.

(Continued from page 7)

New Mexico Southwestern Regional Science Fair

NMSU, Las Cruces, NM

Saturday, March 8, 2008.

Judges: Lisa Jo Elliot and Claudia Barreto

Awardees:

- The Effects of Earthworms and Kitchen Waste on Pinto Bean Growth, Sydeny Salas
- Let it Ring, Sarah Phillips

Awardees received \$20 and a tote bag with career materials.

21st Annual National American Indian Science & Engineering Fair (NAISEF 2008), Albuquerque, NM

March 27-29, 2008

Judges: Tinka Gammel and Dana Roberson

Awardees:

- Mapping Venus - The Use of Magellan Radar Data to Determine the Overall Geologic History of a Circular Low on Venus, How the Area Varies in Space & Time & How the Land Formed - Endogenetic vs. erogenetic. By Courtney Jackson, Cloquet Senior High School, grade 9
- The Stronger Shape, By Ashley Floyd, Rex-Rennert Elementary School, grade 5

"...thank you for supporting my daughter ever since she was in the 7th grade ...We have one of your tote bags and every time we use it we think of you."

—Mother of a State Science Fair Student

Thanks to Mercedes Agogino for consolidating the NM State Fair Awards

(Continued on page 9)



Student Awards continued.

(Continued from page 8)

- Spidrons, By Charlotte Kirk, Westville Public Schools, grade 10
- Honey Beezzznness, By Alexis Jones, Pembroke Middle School, grade 6
- How Does Label Stated Fat Content Affect the Amount of Grease Removed from a Potato Chip and Chip Preferences?, By Cassandra Roy, Cloquet Senior High School, grade 7

\$20 plus tote bag (with Careers CD, water bottle, etc) and certificate were given to the winners.

2008 New Mexico Science & Engineering Fair

NMT, Socorro, New Mexico

April 4-5, 2008

Judges: Mercedes Agogino, Karen Agogino, Claudia Barreto, Wendee Brunish, Victoria Dery, Tinka Gammel, Elizabeth Kallman, Yolanda King

Awardees:

- Emulsion: Solution or Illusion, Donna Teresa Berardinelli
Tote Bag and \$50 Award
- Stream Channel Dynamics Phase III: Modeling Plant Succession Associated with Channel Deposition, Shandiin Chanel Copeland
Tote Bag and \$50 Award

(Continued on page 10)



Student Awards, continued.

(Continued from page 9)

- Space Mission Design: Computerized Planning Using Simulation and Goal-Driven Optimization, Erika Alden DeBenedictis
Tote Bag and \$50 Award
- Go with the Flow, Maxine Hart
Tote Bag and \$50 Award
- The Effects of Phytoestrogens on the Neural Function of Platyhelminthes, Kristen Lin Henriksen
Tote Bag
- Burn Baby Burn, Sonya Nicole John
Tote Bag
- Planet Tug of War, Deanna M. Kincheloe
Tote Bag and \$50 Award
- The Effect of Small FDA-Approved Molecules on Pathogen Uptake, Beth Ann Nicole Lopez
Tote Bag and \$50 Award
- Morphological Variances Between *Ceuthophilis carlsbadensis* and *Ceuthophilis conicaudus*, Sabrina Michael
Tote Bag

(Continued on page 11)



Student Awards continued.

(Continued from page 10)

- Can Hair Measure Humidity?, Delaney Lynn Miller
Tote Bag and \$50 Award
- What is the Most Efficient Light Bulb?, Elizabeth Randall
Tote Bag
- Costly Chaos: The Effects of Disorganization on Productivity and Performance, Taylor Kathryn Roach
Tote Bag and \$50 Award
- ELF/UFL Miners' Little Helpers, Sophie Marie Swingle
Tote Bag and \$50 Award
- Great Balls of Fire II, Caroline J. V. Wurden
Tote Bag and \$50 Award

2007-2008 New Mexico Supercomputing Challenge, Los Alamos

April 21-22, 2008

Supercomputing Challenge Special Awards Judges

Awardees:

- Polar Warming, Emily TenCate and Shelby Anderson
\$50 (split between students) and tote bags with career materials for the students and teacher
Teacher: Diane Medford, Los Alamos High School
Mentors: Mark Anderson, James TenCate



Silver City EYH — Adrienne Dare



The 16th annual Silver City EYH conference was held on Saturday, March 1, 2008 on the Western New Mexico campus. The conference was successful with about 22 hands-on workshops. Each girl attended 3 hands on workshops, received a free t-shirt, a free lunch and a fun final group activity. It is estimated that about 175 girls attended.

NMNWSE Careers Book Updated —Tinka Gammel

Thanks to the volunteer efforts of several members and friends of the Network, over the past two years four new chapters have been added to the NMNWSE careers book, *Careers: Exploring the Possibilities*, available online at

nmnwse.org/careers/

The new chapters are *Histology* by Sally Breeden, *Steps to Leadership and Success* by Lena Hakim, *Women as Leaders* by Barbara Torres, and *Ten Tips for Being Financially Savvy* by Barbara Torres and Patricia B. Bender. The first three were included on the 2008 NMNWSE Careers CD given to students attending our EYH conferences or who received awards from NMNWSE at science fairs and similar events, as well as to many teachers and mentors. The last will be included on the 2009 CD. All are included in the online version.

We have also been able to obtain reprint permission to include on the NMNWSE Careers CD some science games (*PCs in Space* by Tom Devlin and John Wood) as well as several publications aimed at encouraging teens to consider careers in science, engineering, and allied technical fields. *Physics in Your Future* and *Explore, Understand, Succeed: Physics* from the American Physical Society, the *New Mexico Career Clusters Guidebook* from the New Mexico Department of Workforce Solutions, *Careers in Ecology* from the Ecological Society of America, and EYH conference materials from the national EYH Network, are on the 2008 CD. The 2009 CD will also include *Beating the Odds: Remarkable Women in Science* from the AAAS in partnership with the L'Oreal Foundation and Science. **If you would like to request a sample CD, or multiple copies for an outreach event, please contact the NMNWSE Board.**

(Continued on page 13)

“...four new chapters
have been added to the
NMNWSE careers
book...”

Find out more about the
NMNWSE Board at
nmnwse.org/Board



NMNWSE Careers Book Updated, continued.

(Continued from page 12)

We also maintain an online links page

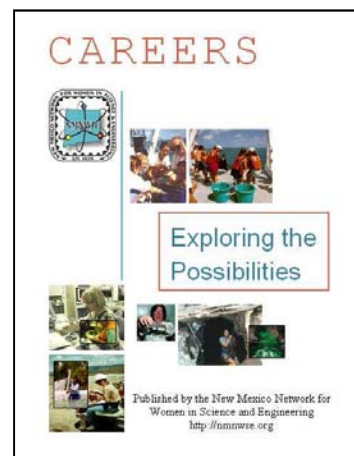
nmnwse.org/eyh/links.php

to help people receiving the CD, as well as NMNWSE members, locate additional educational and professional resources on the web.

Suggestions for additional material to include on the CD (and volunteers to help track down copyright permission), volunteers to help better organize or update the online related links, as well as volunteers to write or update chapters in the NMNWSE careers book, are always welcome - simply contact the board at

NMNWSE_Board-l@list.unm.edu.

And thanks again to all those whose efforts contributed to the current and previous versions!



The NMNWSE Careers Book for Teens. Please visit nmnwse.org/careers

Annual Meeting, continued.

(Continued from page 1)

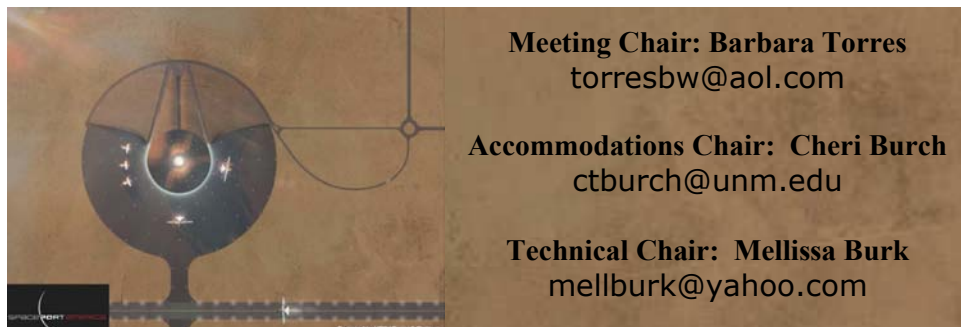
others in the Network. Oral presentations (including questions) are 30 minutes.

Poster presentations are encouraged, and will be accompanied by appetizer refreshments. Abstracts are due 3 October 2008. Note that students can apply for meeting scholarships. In the evening on Saturday, the **IMPACT!** award will be presented (please see story on pg. 6) followed by an after-dinner program. On Sunday there will be the first Board meeting of the new fiscal year, with all members invited to attend.

We welcome early hotel reservations. Please mention that you will be attending the annual meeting and/or mention Cheri Burch's name when reserving your room.

Please visit

nmnwse.org/AM/2008/



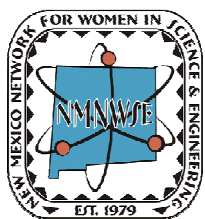
Special thanks to Tinka Gammel for her help with the newsletter!



The New Mexico Network for Women in Science and Engineering

New Mexico Network for Women in
Science and Engineering
PO Box 1360
Los Alamos, New Mexico 87544

NMNWSE E-mail: nmnwse-l@list.unm.edu
Board E-mail: NMNWSE_Board-l@list.unm.edu



Supporting women in science, engineering
and allied professions for nearly 30 years.

NMNWSE encourages women to enter into, and develop their careers in science, engineering, and allied professions through annual technical symposia outreach, and local chapter activities.

We are a group of women scientists, mathematicians, educators, managers, community leaders, and parents, most of whom live and work in New Mexico.

Members get together to share common interests, to celebrate our successes, and learn about each other's work.

www.nmnwse.org

Individual Highlights continued.

(Continued from page 5)

- **Jennifer Nisengard**

On March 28, 2008 Jennifer presented a paper at the Society for American Archaeology Meeting in Vancouver, BC entitled: *Cultural resources and recreational trails use at Los Alamos National Laboratory, Los Alamos, New Mexico, education and mitigation*. She also has a paper in press which will come out in the spring issue of the Journal of Field Archaeology titled: *Seismic Refraction at Ancestral Puebloan Sites (A.D. 1200 to 1450) on the Pajarito Plateau, Northern New Mexico USA*

- **Megan Richardson**

Megan presented the delightful "An Evaluation Scheme for Hierarchical Information Browsing Structures" at CHI 2008. This is a conference for which she got grants from ACM and ACM-W.

- **Maj Gen (Dr.) Annie Sobel**

Maj. Gen (Dr.) Annie Sobel was a plenary speaker at the 83rd annual AAAS/Southwest regional speaker on the topic of "challenges and opportunities in global health surveillance", ABQ, NM on 12 April. She is a contributing author to the book: "Essentials of Terror Medicine", Cole and Shapira, Eds., to be published this year by Springer. She is a new member of the American Red Cross, Board of Directors, Rio Grande Chapter. She is also completing her third year as a National Board of Directors member, Girl Scouts of the USA.