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WOMEN in Science 011





Dear Students,

Thank you for coming to the 2011 Oklahoma EPSCoR Women in Science Conference! You can help yourself **and** Oklahoma's future by choosing careers in science, technology, mathematics, and engineering. Our exciting keynote this year will focus on using and creating technologies to improve health. Each of our sessions during the day will excite you about careers in all aspects of science, technology, mathematics, and engineering!

From improving health care or the environment to extending our presence into space, science is crucial to making the world a better place. We can't do it without you! Your experiences and your ideas are unique and needed. Scientists do not work alone. They work together as teams, using everyone's experiences to solve large problems. These teams need to be as diverse as possible, which means we need your participation!

As you meet today's women scientists, think about your personal career goals and the path to take you there. Ask questions and figure out what you can do now to take the next step on your journey. Remember that *you* are in charge of your education. Start by taking the science and math classes. The choices you make for classes now will affect your college and future career paths.

Scientists learn by asking questions! Don't be afraid to ask questions both here and back at school. Find out how the scientists got to where they are. What obstacles did they have to overcome? What were their career plans in middle and high school? Why did they choose the careers they have chosen? Ask your teachers lots of questions. They are here to help you learn.

Remember: "Shoot for the moon. Even if you miss, you'll land among the stars." ~ Les Brown

I look forward to seeing you today!

Amy McGovern, Ph.D.

Chair, Women in Science Conference 2011 Assistant Professor of Computer Science

University of Oklahoma



Women in Science Conference 2011 Planning Committee

A sincere "Thank you!" to the members of this year's Women in Science Planning Committee. These fantastic individuals volunteered countless hours and a wealth of expertise to the planning and implementation of this event. Committee members were focused on producing the best-possible conference to encourage Oklahoma's young women to dream big, plan now and reach for the stars. Their contributions are greatly appreciated!

Chairperson

Amy McGovern, University of Oklahoma

Subcommittee Chairpersons

Theresa Cullen, University of Oklahoma, Teachers' Lounge & Scavenger Hunt Jen Macken, Oklahoma State University, Hands-On Sessions Gina Miller, Oklahoma EPSCoR, Recruitment Fair Kay Scheets, Oklahoma State University, Hands-On Sessions Deborah Trytten, University of Oklahoma, Career Planning Sessions

Committee Members

Linda Atkinson, University of Oklahoma Madeline Baugher, Oklahoma NASA Space Grant Consortium/NASA EPSCoR David Brown, University of Tulsa Victoria Duca-Snowden, Oklahoma NASA Space Grant Consortium/NASA EPSCoR Precious Elmore, Oklahoma State University Carla Guthridge, Cameron University Fabiola Janiak-Spens, Oklahoma City Community College Sharon Lewis, Langston University Sara Mata, Oklahoma State University Henry Neeman, University of Oklahoma Ann Nguyen, Oklahoma NASA Space Grant Consortium/NASA EPSCoR Stephanie Ponder, Oklahoma NASA Space Grant Consortium/NASA EPSCoR Kay Porter, Oklahoma State University Meghan Rieke, Oklahoma NASA Space Grant Consortium/NASA EPSCoR Dorinda Risenhoover, Oklahoma NASA Space Grant Consortium/NASA EPSCoR Robin Schott, Oklahoma Career Tech Toni Shaklee, Oklahoma State University Charlotte Simmons, University of Central Oklahoma Janis Slater, University of Oklahoma, K20 Center Kieu Oahn "Kelly" Tran, University of Oklahoma Phebe Tucker, University of Oklahoma Health Sciences Center Susan Walden, University of Oklahoma

A SPECIAL "THANK YOU!" TO THESE WOMEN IN SCIENCE SPONSORS FOR THEIR GENEROUS SUPPORT!

Jim Wicksted, Oklahoma EPSCoR













Oklahoma INBRE

Museum Map



GE ROOM

Sam-Spm Ham-Spm STAND THANKS SHIP CONTINUE FOR AND CANDITANS DAY Monday-Friday. Saturday Sunday

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Membership provides unfesting advention to Science Manage Collaboras for an ordine year, place discounts for The Science Step and most Prices, start at \$100 for

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TEACHERS'

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February 8, 2011 * Science Museum Oklahoma 201/conference

AGENDA

9:00 a.m. Registration and Breakfast (2nd Floor: Mezzanine)
Educational Outreach & College Recruitment Fair

9:30 a.m. Welcome & Introductions (Auditorium)

Jim Wicksted, OK EPSCoR Associate Director

Amy McGovern, 2011 Women in Science Conference Chairperson

Assistant Professor of Computer Science, University of Oklahoma

9:45 a.m. Keynote Address (Auditorium)

"Live, Love, Research: Creating Technologies that Improve Health!"

Katie Siek, Assistant Professor of Computer Science

University of Colorado at Boulder



(See Subsequent Agenda Pages for Your School's Session)



Agenda—Continued Group 1 Breakout Sessions

GROUP 1 SCHOOLS

10:30 a.m. Group 1 Interactive Panel Discussion (2nd Floor: Auditorium)

Moderator: Ruth Cavens, Executive Director, Oklahoma WONDERtorium Janet Cairns, Academic Technology Services Director, University of Tulsa Christine G. Co, Electronics Engineer, Federal Aviation Administration

Kathryn Klump, MD/PhD Student, OU Health Sciences Center Laura Scott, Zoology Student, Oklahoma State University

Emily Sutton, Meteorologist, KFOR Television

Michelle Zarantonello, Biologist & Education Specialist, Oklahoma Aquarium

11:30 a.m. Hands-on Science Activities (1st Floor: Navy Gallery)

11:30 a.m. Teachers' Lounge & Resources * (2nd Floor: YAG Gallery)

Teachers, Counselors, and Parents Only

12:30 p.m. LUNCH & Educational Recruitment Fair (2nd Floor: Mezzanine)

1:15 p.m. Scavenger Hunt Prize Drawings (2nd Floor: Page Room)

Turn in Completed Scavenger Hunt Forms/Drawings Held

1:30 p.m. College Planning (2nd Floor: Page Room)

2:30 p.m. Adjourn Conference:

Attend "Science Live!" Demonstration—45 Minute Show (Auditorium)

Freely Explore the Museum

* Teachers' Lounge session is scheduled during the time that students are in the hands-on session. Numerous adult volunteers will be supervising students during this session. The lounge will be open to all adult attendees throughout the day.

GROUP 2 SCHOOLS

10:30 a.m. Hands-on Science Activities (1st Floor: Navy Gallery)

10:30 a.m. Teachers' Lounge & Resources * (2nd Floor: YAG Gallery)

Teachers, counselors, and parents only

11:30 a.m. College Planning (2nd Floor: Page Room)

12:30 p.m. LUNCH & Educational Recruitment Fair (2nd Floor: Mezzanine)

1:15 p.m. Scavenger Hunt Prize Drawings (Auditorium)

Turn in Completed Scavenger Hunt Forms/Drawings Held

1:30 p.m. Group 2 Interactive Panel Discussion (Auditorium)

Moderator: Ruth Cavens, Executive Director, Oklahoma WONDERtorium

Heather Balogh, Pre-Med Student, University of Oklahoma Laura Bartley, Botany Professor, University of Oklahoma

Maria Engel, Lab Technician, DNA Solutions

Rikki Jones, Operations Management Trainee, Pepsi Beverages Company Amy McGovern, Computer Science Professor, University of Oklahoma Teresa Seyfert, Veterinary Resident, OSU College of Veterinary Medicine

2:30 p.m. Adjourn Conference:

Attend "Science Live!" Demonstration—45 Minute Show (Auditorium)

Freely Explore the Museum

* Teachers' Lounge session is scheduled during the time that students are in the hands-on session. Numerous adult volunteers will be supervising students during this session. The lounge will be open to all adult attendees throughout the day.



GROUP 3 SCHOOLS

10:30 a.m. College Planning (2nd Floor: Page Room)

11:30 a.m. Group 3 Interactive Panel Discussion (Auditorium)

Moderator: Ruth Cavens, Executive Director, Oklahoma WONDERtorium Brandi Andrews, Industrial Engineering Student, Oklahoma State University

Nina Barker, Industrial Engineer, Federal Aviation Administration

Michelle Davis, Veterinarian, Oklahoma City Zoo

Andria Medina, Medical Student, OU Health Sciences Center

Emily Sutton, Meteorologist, KFOR Television

Laura Vanderberg, Chief Scientist, University Multispectral Laboratories

12:30 p.m. LUNCH & Educational Recruitment Fair (2nd Floor: Mezzanine)

1:15 p.m. Scavenger Hunt Prize Drawings (2nd Floor: Satellite Gallery)

Turn in Completed Scavenger Hunt Forms

1:30 p.m. Hands-on Science Activities (1st Floor: Navy Gallery)

1:30 p.m. Teachers' Lounge & Resources * (2nd Floor: YAG Gallery)

Teachers, counselors, and parents only

2:30 p.m. Adjourn Conference:

Attend "Science Live!" Demonstration—45 Minute Show (Auditorium)

Freely Explore the Museum

* Teachers' Lounge session is scheduled during the time that students are in the hands-on session. Numerous adult volunteers will be supervising students during this session. The lounge will be open to all adult attendees throughout the day.

School Breakout Session Assignments

Please Attend Your Assigned Session to Ensure Seating



GROUP 1 SCHOOLS

Alcott Middle School Allen Schools **ASTEC Charter Schools Atoka Public Schools Atoka Technology Beggs Public Schools** Binger-Oney High School Blackwell Middle School **Broken Arrow High School Brown Academy Capps Middle School Central Middle School** Chamberlain Middle School **Cornelsen Elementary DeVry University** Elgin High School Fargo High School **Grandfield Public Schools Gordon Cooper Tech Centers**

GROUP 2 SCHOOLS

Hartshorne Elem. School

Hefner Middle School Hilldale High School **HogWarts Independence Charter School Irving Middle School** John Marshall High School Kenneth Cooper Middle School K20 Center Lawton High School **MacArthur Public Schools** Magruder Home School Mayfield Middle School McCall Middle School Minco High School Ninnekah Public School **Noble High School** Norman High School

GROUP 3 SCHOOLS

Oral Roberts University Putnam City North High School **Rogers High School Rose Witcher** Salina High School Seguoyah Middle School Strother Schools Sulphur Junior High School **TechWorks Academy** Tri County Technology Center **Tristar Academy Home School** Tulsa Central High School **Union City Schools** University of Tulsa GEAR UP Vian Middle School Walters Middle School Wanette Public Schools **Western Heights School** Western Oaks Middle School Wetumka Schools Will Rogers High School

Special Opportunities

For Students and Teachers



Two Ways to Win:

- * Complete the Scavenger Hunt form on the back cover of this program to enter a drawing for prizes to be given away at 1:15 today!
- * Return your completed student survey to the registration desk after your final session to receive a souvenir portfolio and other goodies!



Adults are invited to visit the Teachers' Lounge located in the YAG Gallery, on the second floor across from the auditorium. In addition to scheduled breakout sessions, the Teachers' Lounge will be open throughout the day to all adult conference attendees.

- * Classroom resources for science & math teachers
- * Learn about summer research opportunities
- * Network with other educators
- Refreshments are available

Hands-On Science Breakout Session

Exhibits and Sponsors

Investigating the Rock Cycle

Association for Women Geoscientists, Cowgirl Student Chapter Boone Pickens School of Geology, Oklahoma State University

Math Playground

Cameron University

Neuroscience for Kids: Explore the Brain and Nervous System

Cellular and Behavioral Neurobiology Graduate Program, University of Oklahoma

Psychology as a Natural Science

Department of Psychology, Oklahoma State University

Cellulosic Bioenergy 101—EPSCoR Bioenergy

Oklahoma EPSCoR

National Airspace System

Federal Aviation Administration

Is an Academy in Your Future?

Biosciences & Medicine Academy and the Pre-Engineering Academy Francis Tuttle Technology Center

W.E.T. Wonders

Girls Scouts of Western Oklahoma

ByoBots: Behavior-Based Robots KISS Institute for Practical Robotics

It's Not Magic

Department of Mathematics and Computer Science, Northeastern State University

Examining Calories, Food and Physical Activity

Department of Nutritional Sciences, Oklahoma State University

People Push: Habitat Destruction

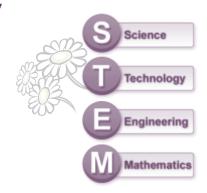
Oklahoma City Zoo

The Light Booth

Science Museum Oklahoma

Be an Engineer Sooner

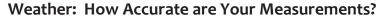
Sooner Elementary Engineering and Science





Hands-On Science Breakout Session

Exhibits and Sponsors—Continued



Oklahoma Mesonet

A First Look at the Video Game Industry

Oklahoma Panhandle State University

To Catch a Criminal

Oklahoma State Bureau of Investigation

Light and the Environment

Interior Design Program, Oklahoma State University

Designing Chemically Powered Vehicles

School of Chemical Engineering, Oklahoma State University

The Secret Dance of Plants

Oklahoma State University Botanical Society

Programming Plant Identification

Department of Botany, Oklahoma State University

Plants—Get Into Them!

Department of Horticulture and Landscape Architecture, Oklahoma State University

Wind Energy in Oklahoma

Oklahoma Wind Power Initiative

OSU Insect Adventure

Department of Entomology and Plant Pathology, Oklahoma State University

Silly Boys...Power Tools are for Girls!

Ponca City High School Wildcat Robotics Team

Careers in Aviation

University of Oklahoma Aviation Department and the OU Sooner Flight Academy

Monitoring Our Environment

United States Geological Survey OKWSC

First Flight

Women in Aviation



Educational Outreach and Recruitment Fair

Visit These Terrific Booths in the Mezzanine!

Oklahoma EPSCoR

Boone Pickens School of Geology, Oklahoma State University

Cameron University

Girl Scouts of Western Oklahoma

KISS Institute for Practical Robotics

Metro Technology Centers

Oklahoma City Community College Biotechnology Program

Oklahoma City Community College Clinical Research Program

Oklahoma City Community College Computer Aided Technology Program

Oklahoma City Community College Engineering Program

Oklahoma City University Office of Admissions

Oklahoma City Zoo

Oklahoma Guaranteed Student Loan Program, Oklahoma State Regents for Higher Education

Oklahoma Health Care Workforce Academy

Oklahoma Junior Academy of Science

Oklahoma State Science and Engineering Fair

— Continued —

Educational Outreach and Recruitment Fair

Visit These Terrific Booths in the Mezzanine!

Oklahoma Louis Stokes Alliance for Minority Participation (OK-LSAMP)

Division of Institutional Diversity

Oklahoma Panhandle State University

Oklahoma Sate University College of Human Environmental Sciences

Oklahoma State University Center for Health Sciences

Oklahoma State University College of Arts and Sciences

Oklahoma State University College of Education

Oklahoma State University College of Engineering, Architecture and Technology

Southwest Area Health Education Center

University of Central Oklahoma Department of Chemistry

University of Oklahoma College of Engineering

University of Oklahoma College of Nursing

University of Oklahoma Health Sciences Center Graduate College

University of Oklahoma Health Sciences Center Graduate Program in Biomedical Sciences

University of Oklahoma School of Electrical and Computer Engineering

University of Tulsa Graduate School

University of Tulsa Summer Science/Technology Academies



Outreach Initiatives 2008-2013

For detailed program information, contact: Gina Miller, Outreach Coordinator 405.744.7645 or gmiller@okepscor.org www.okepscor.org

K-12 Student Development

- OK Museum Network Mobile Science Vehicle
- Women in Science Conferences
- Bioenergy Summer Technology Academies
- Science Educators Training on GLOBE Objectives
- Educational Robotics Teams (BOTBALL)



Faculty Development

- Annual State Conferences
- NSF Grants Workshop
- NSF ADVANCE Workshop
- Research Opportunity Awards (ROA)
- OK Supercomputing Symposium
- · Investigator Travel
- International Workshop on the Interconnection Between Particle Physics & Cosmology

Entrepreneurship

- OCAST Industry Internships
- Entrepreneurial Workshops
- Business Plan Competitions
- i2E Commercialization vouchers



Research Experiences for Undergraduates



OMN Mabile Science Vehicle

Postsecondary Outreach

- Tribal College Outreach
- · Mentoring Program at Langston University
- Supercomputing in Plain English Workshops
- Oklahoma Research Day for Regional Universities
- Research Experiences for Undergraduates (REU)
- Travel for Students to Professional Meetings
- · Jump Start RISE (Retention Initiative Student Excellence)

Public Outreach

- · Research Day at the State Capitol
- Sci-Tech Student Reporting Awards
- Newsletters
- · Web site: www.okepscor.org

Partnerships

- Oklahoma State Regents for Higher Education
- Oklahoma State University (OSU)
- University of Oklahoma (OU)
- OU Health Sciences Center
- Comanche Nation College
- Langston University
- The University of Tulsa
- Samuel Roberts Noble Foundation
- NSF Louis Stokes Alliance for Minority Participation
- American Indian Science & Engineering Society
- Oklahoma Museum Network
- Retired Educators for Youth Agricultural Programs
- · Oklahoma Cyberinfrastructure Initiative
- · The State Chamber
- i2E, Inc. (Turning Innovation into Enterprise)
- OSU Formula Society of Automotive Engineers
- Oklahoma Center for the Advancement of Science & Technology

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PRINCIPAL INVESTIGATOR, NSF EPSCOR RII Award EPS-0814361

James Wicksted, Ph.D.
Professor, Department of Physics
Oklahoma State University
Associate Director, Oklahoma EPSCoR

Dr. Wicksted received his B.A. degree (1975) from New York University and his M.A. (1978) and Ph.D. (1983)

from the City University of New York. He became a member of the Department of Physics at Oklahoma State University in 1985, where he is currently a full professor and a Noble Research Fellow in optical materials. He is also the Director of Multidisciplinary Research in the College of Arts & Sciences at OSU.

His current research interests include the optical studies of various types of nanoparticle complexes that have potential biosensing and biomedical applications. Dr. Wicksted has also collaborated with the Biomedical Engineering Center at the University of Texas Medical Branch in Galveston since 1992, where he has worked with medical doctors and bioengineers on the noninvasive applications of lasers in diagnosing disease.

Dr. Wicksted is the associate director of the Oklahoma NSF EPSCoR Program and the Director of the Oklahoma DOE EPSCoR Program. He is currently the principal investigator of a \$15 million Research Infrastructure Improvement Grant funded by the NSF EPSCoR Program.



OK EPSCOR WOMEN IN SCIENCE CONFERENCE 2011 CHAIRPERSON & GROUP 2 PANELIST

Amy McGovern, Ph.D.
Assistant Professor of Computer Science
University of Oklahoma

Amy McGovern started playing with computers at the age of six when her mom brought home their first computer and taught her how to program it. Between tinkering with BASIC and playing games with her dad, Amy decided that computers

were fun, but they needed to be much smarter to help us. Amy's other passion is space, which was ignited at an early age by watching shuttle launches and space walks.

Dr. Amy McGovern is now an assistant professor in Computer Science at the University of Oklahoma, where her main research focus is on machine learning and data mining. Her goals are to enable computers to intelligently assist us and to make a positive difference in the real world.









KEYNOTE SPEAKER

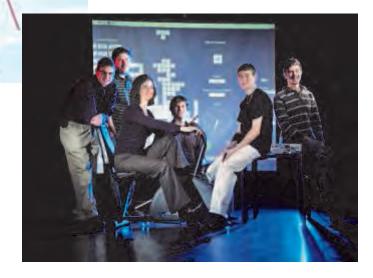
Katie Siek, Ph.D.
Assistant Professor of Computer Science
University of Colorado at Boulder

Katie Siek, a native of New York, became interested in computers in the 4th grade—She wanted a piano, but her father bought a computer instead. Her father helped her create a program that made each key on the keyboard play a different sound. Soon, Katie forgot about wanting a piano and started tinkering with computers.

Katie always knew she wanted to go to college, but she was unsure of how she could afford college, since she was the first person in her family to attend college. Her mother was instrumental in helping her through this process. They spent many hours together in the library reading books about colleges and financial aid.

Katie finally selected Eckerd College in St. Petersburg, Florida and funded herself through academic awards, an athletic scholarship and personal loans.

—Continued next page—



—Keynote, continued—

During college, Katie explored different career opportunities by interning with Lucent Technologies and conducting research through the Ford Apprentice Scholars Program. She loved doing research, because it gave her the opportunity to become an expert on a specific topic—One day she even taught her professor something new!

Since she wanted to do research, Katie decided to pursue her Ph.D. with a fellowship from the National Physical Science Consortium that paid for her schooling and provided her with a salary! Initially, she did not like her research, because she did not see how it could help people. Then, she took a break from graduate school to take care of her terminally ill mother. During this time, Katie realized her true passion was in creating technology that could empower people to manage their health. After her mom passed away, Katie pursued this new research area, health informatics, with fervor. She has been creating technology to help people improve their health ever since.

Katie is now an assistant professor in Computer Science at the University of Colorado in Boulder. Her favorite thing about being a professor is getting the opportunity to work with brilliant students who create things that they previously only imagined. Katie currently lives in Colorado with her husband, Jeremy (a professor in Electrical, Computer, and Energy Engineering!), and three-year old daughter, Aspen. When she is not working, Katie can be found biking, running, hiking, skiing, rock climbing, or pretending with her family.





PANEL SESSION MODERATOR

Ruth Cavins, MEd, LPC Executive Director, Oklahoma WONDERtorium

Ruth Cavins married her high school sweetheart two weeks after high school graduation, and went on to complete a Bachelor of Science degree in Psychology, and a Master's de-

gree of Education at Southwestern Oklahoma State University. She became a Licensed Professional Councilor in the state of Oklahoma, and her first real job was as a counselor at a rural community mental health center. While there, Ruth worked in a number of capacities serving severely and persistently mentally ill adults, young children and families, adolescents, and adults transitioning to nursing home care. She says she loved this job!

At the age of 25 Ruth — etired," and she and her husband moved to North Carolina so he could complete a doctoral degree in horticulture. To avoid putting their infant daughter in day care, Ruth became nanny to a number of affluent children. This adventure took her to museums, zoos, parks and playgrounds throughout North Carolina. She says she loved this job! This was the beginning of Ruth's research. She discovered that these experiences captured and fed a child's natural curiosity. Equally as important, she realized what an important role consistent and nurturing adults play in the development of a healthy child.

Today, Ruth's employer and passion is the Oklahoma WONDERtorium, where she says she feels fortunate to serve as executive director. She works with an amazing group of people to build a children's museum from scratch. Ruth loves this job!

Growing up, Ruth and her father spent many hours in the garage or barn crafting gadg-

ets and doing science experiments. There was no right or wrong answer, only the joy of discovering what would happen. This is the essence of a children's museum. The Oklahoma WON-DERtorium will inspire curiosity to learn through play... for a lifetime.

Ruth is still married to her high school sweetheart, Todd, who is a Technical Specialist for Sun Gro Horticulture. She and Todd live in Stillwater, Oklahoma with their 10-year-old daughter Chloe, 7-year-old daughter Wren, 4-year-old son Teagan, a dachshund named Nitro, and two bunnies.





Brandi Andrews Industrial Engineering and Management Senior Oklahoma State University

Brandi Andrews is currently a senior at Oklahoma State University, working on her B.S. in Industrial Engineering and Management, along with a minor in Sports Management. She is also a student athlete. As a middle distance runner she is on the track

and field team as well as the cross country team at OSU. Brandi grew up in Chattanooga, TN and attended Girls Preparatory School, where she was actively involved in Student Council, played basketball, and ran track.

Activities that Brandi is currently involved in include being the academic excellence chair for the National Society of Black Engineers, vice president for the Student Athlete Advisory Committee, the student athlete representative on Faculty Athletic Council and the Athletic Committee of Faculty Council, a ConocoPhillips Spirit Scholar, and an OK-LSAMP scholar working on a Biodiesel Energy project under Dr. Terry Collins. Brandi has a love for being involved and helping people, so she feels that she can use her math and science skills to help out as many people as possible. During the minimal free time that she has, she enjoys hanging with family and friends.





PANELIST, GROUP 2

Heather Balogh Pre-med Student University of Oklahoma

Heather is currently a pre-med student at the University of Oklahoma, working toward a bachelor's of science degree In multidisciplinary studies, with emphasis in health and literary studies. She looks forward to attending Physician Assistant (PA) school and eventually working in pediatrics, with a focus on obesity-related medicine. She has enjoyed

participating in ACM-W, a computer science organization geared specifically toward the advancement of women, during her time at the University of Oklahoma.

Heather has spent a lot of time figuring out exactly what she wants to do. Over the years, she has changed majors quite a few times, but has found that medical science is what she finds most fulfilling and exciting. Although she never thought of herself as a person who liked science, Heather says she has found that she actually loves it! Learning new things about the human body, the physiological processes that keep us alive, and how we pass on our genetic information is absolutely exhilarating to her. Last year Heather participated in the Women in Science Conference and taught students how to use -finches" (little robots) to make them dance, draw things and flash different colored lights. In general, she really loves the processes of learning and truly enjoys sharing that love with others.

When Heather's not working, she may often be found spending time with her fiancé. She loves to cook, play video games, scrapbook and travel. Back in 2009, she was lucky enough to travel to Japan, where she spent more than a week exploring Japanese culture and food. She even got to climb Mt. Fuji, which she says is just about as hard as it sounds! She looks forward to planning her honeymoon and continuing to travel as much as she can.







Nina Barker, Ph.D. Industrial Engineer Federal Aviation Administration

Dr. Nina Barker received her B.S/M.S. in Industrial Engineering in 2003 from the University of Miami in Coral Gables,

Florida. Her studies at the University of Miami focused on manufacturing and computer simulation. While at the University of Miami, she loved hanging out with her friends and family and going to the beach. When she was in high school, she was in the National Honor Society, Math Honor Society, and science club. Her love of math

and physics led her to become an engineer.



After receiving her degree from the University of Miami, Nina moved to Oklahoma to attend the University of Oklahoma, where she obtained her doctorate degree in Industrial Engineering in 2008. While at OU, she volunteered for the Sooner Elementary Science and Engineering (SEES) program, helping elementary school students participate in hands-on learning about science and engineering through cool experiments; she even helped develop some of the experiments. She was also a research assistant,

which helped her pay for her education. As a research assistant, Nina helped organize a program funded by the National Science Foundation called Research Experience for Undergraduates (REU), which helps provide undergraduate engineering students with a better understanding of how to perform research. Nina was a participant of the REU

program at the University of Oklahoma in 2002 and decided to attend the university based on her wonderful summer experi-

ence.

Nina currently works for the Federal Aviation Administration as an Industrial Engineer. She is also the Volunteer Chair for the University of Virginia Oklahoma City Chapter, arranging events for local graduates of the University of Virginia. (Nina's husband is a graduate of UVA). For fun, Nina likes to bake, exercise, play video games, talk on the phone, and hang out with her husband and friends.





Laura Bartley, Ph.D. Assistant Professor of Botany University of Oklahoma

Dr. Laura Bartley is an Assistant Professor of Botany at the University of Oklahoma. The current focus of her research

is to understand the genes that grasses use to build their leaves and stems, information relevant to so-called second generation biofuels that make use of the whole plant, instead of just the seeds. In addition to mentoring students in research, she teaches courses on bioenergy and biotechnology.

Dr. Bartley arrived in Oklahoma last fall, after doing postdoctoral work at the University of California at Davis. Prior to that she served for two years as a science policy fellow with the US Department of Agriculture in the office that regulates genetically engineered plants. Dr. Bartley earned her Ph.D. in Biochemistry at Stanford University and her B.A. in Biology at Swarthmore College in Pennsylvania. She grew up in Tucson, Arizona and Houston, Texas.

Dr. Bartley is the mother of two boys, ages one and six, and she especially loves spending time enjoying the out-of-doors with them and her husband, Matthew Peck, who is himself a scientist and a teacher. She also likes to cook, run, bicycle and play board games.







PANELIST, GROUP 1

Janet Cairns Director of Academic Technology Services University of Tulsa

Janet is in her second career as Director of Academic Technology Services at the University of Tulsa. She has been at the university since 1999, when she retired from her first career as a Geologist for Amoco Production Company.

Janet received her B.S. in 1983 and her Master's Degree in Geology in 1985 from Oklahoma State University. While her main studies were focused in science, she also took computer technology courses, where she learned computer programming. Her combined interest in geology and computers created opportunities to work during school breaks as a software programmer for geologic applications at the Research Center for Amoco Production Company in Tulsa.

After completing her Master's degree, Janet began working full time at the Amoco Research Center. In this position, she worked in a team environment using technology to develop three-dimensional integrated data models of the subsurface in oil fields. She developed web pages for the company intranet to disseminate technical notes and information. At that time the internet was not widely used outside of companies. At Amoco, Janet had opportunities to travel in the United States as well as overseas. She even spent a year working in London, England.

At the University of Tulsa, Janet provides technology support to faculty and students. She helps faculty use a variety of technologies in their classes, including applications

like online course tools, web pages, SMART boards, Google Earth, iMovie, and more. A portion of her job includes researching technologies, i.e. —plang" with fun technology. Janet also enjoys teaching education technology to future teachers. Though she has a very technical focus, her most

important role is working with people and helping them to be successful using technology.

In her spare time Janet enjoys coaching volleyball, playing sports, hiking in the mountains, taking pictures and training her dog, a Belgian Tervuren named Tucker.







PANELIST, GROUP 1

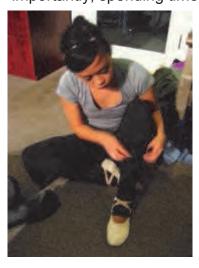
Christine G Co
Electronics Engineer
Visual Guidance Team
Federal Aviation Administration

Christine graduated from Oklahoma State University with a Bachelors Degree in Electrical Engineering. During her time in college, she conducted research for the School of Electrical

Engineering in the fields of optics and engineering education. Her senior year, she was lead author for a research paper and co-author on two additional papers addressing courses designed to improve student performance on open-ended design projects. This work was presented and published at the annual conference for the American Society of Engineers in Education. Outside of research and the classroom, Christine participated in cultural organizations, holding leadership positions including president of the Asian American Student Association and winning the title of Ms. International OSU. She also worked as a spokesperson for a local BMW Ducati Shop.

Upon graduating, Christine joined Sanyo Electric, working as one of their two electrical engineers for the business' North American renewable energy division. In 2008, she joined the Federal Aviation Administration's Visual Guidance Team, focusing on runway safety. She currently works as the Audit Lead and Engineering Support Lead for the Runway Status Lights Program. This new lighting system will be launched in major airports across the United States.

Career aside, Christine spends time jet-setting to various destinations around the globe. When not on travel, she enjoys taking dance class, reading and learning about politics and public policy, playing soccer, and most importantly, spending time with her family and friends.







Michelle Davis, DVM Associate Veterinarian Oklahoma City Zoo

Dr. Michelle Davis received her B.S. in psychology, with a minor in biology, in 1997 from Texas State University in San Marcos, Texas. While in high school, she enjoyed math and science classes and worked hard to make good grades.

She spent her summers as a camp counselor in the education department at Sea World of San Antonio. She always wanted to work with animals, so she decided to major in psychology in college, so she could pursue a career as a trainer at Sea World.

During her last year of college, Michelle decided that she might like to become a veterinarian. She had always liked medicine and thought this would be a good way to work with animals. It would also mean she wouldn't have to get in the cold water at Sea World, as trainers must. She volunteered at a vet clinic and found out that she really liked it. In 1999, she moved to Baton Rouge and attended Louisiana State University School of Veterinary Medicine, where she received her Doctor of Veterinary Medicine (DVM) degree in 2003. She then moved to Boston for one year, where she held a veterinary internship and worked with dogs and cats. She then moved to Connecticut to do another veterinary internship with aquatic animals at the Mystic Aquarium. While there, she got to work with penguins and beluga whales – two of her favorite animals! After that, Michelle moved to Chicago for a three-year residency in zoo medicine at the Brookfield Zoo, the Lincoln Park Zoo and Shedd Aquarium. She did a research project with penguins during her residency.

In 2008, Michelle took her current position as associate veterinarian at the Oklahoma

City Zoo and obtained her zoo animal medicine specialist certification. She enjoys all of the different animals she gets to work with at the zoo.

For fun, Michelle likes to spend time with her husband and her new baby, Blake. She also likes to travel, try new cuisines, exercise and go for walks outside.





PANELIST, GROUP 2

Maria Engel Laboratory Technician DNA Solutions, Inc.

Maria Engel received her Associates Degree in Applied Science Biotechnology from Oklahoma City Community College (OCCC). She interned with at one of Oklahoma's finest biotechnology laboratories, DNA Solutions, where she is currently employed.

During her time at OCCC, Maria was a member of the Biotechnology Club, she was selected as a member of the President's Honor Roll, and was twice elected to Who's Who Among Students in American Junior Colleges. She believes that education is the key to success and a necessity for growth as an individual and professional. She truly enjoys her work and the opportunities to continue learning.

Maria loves her family, which includes her husband and four children, and she is con-

tinuously working on her education.









PANELIST, GROUP 2

Rikki Jones Operations Management Trainee Pepsi Beverage Company

Rikki Jones was born and raised in Oklahoma City, Oklahoma. She has an older sister, as well as a younger brother and sister who are twins.

Rikki attended Northeast Academy for Health Sciences & Engineering from the sixth through twelfth grade, and took the "Advanced Placement (AP) track." The AP track allowed her to test out of college courses and take concurrent enrollment college classes at Northeast, while still in high school. As a high school student, Rikki enjoyed participating in various activities, including basketball, softball, TIVY team, Academic Decathlon and the National Honor Society.

After graduating from high school with 18 hours of college credit already accumulated through the AP track program, Rikki attended Oklahoma State University, where she majored in Industrial Engineering & Management and minored in Spanish. During her collegiate career, she was very active on campus. She ran for Miss Black OSU, sang in the choir, won African American Homecoming Queen, participated in the Inclusion Leadership Program and traveled all over the country with her friends as a member of the National Society of Black Engineers. She completed two engineering internships with Fortune 500 companies - Halliburton Energy & ConocoPhillips.

After completing her degree at OSU, Rikki moved to Tulsa, Oklahoma, where she currently resides and is now training for an Engineering Management position at Pepsi. She plans to receive her master's degree in the near future, and she will continue to travel around the world.







Kathryn E. Klump MD/PhD Student Oklahoma Center for Neuroscience University of Oklahoma Health Sciences Center

Kathryn is currently finishing her third year as an MD/PhD student at the University of Oklahoma College of Medicine. In addition to obtaining her medical degree, she is working to-

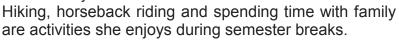
wards a PhD in neuroscience with a specialization in the anatomical sciences through the Oklahoma Center for Neurosci-ence at the University of Oklahoma Health Sciences Center. She determined to pursue this dual degree program following participation in the EPSCOR Women in Science conference as an undergraduate freshman.

Kathryn obtained her bachelors degree in biology from Oral Roberts University in Tulsa, Oklahoma, where she took part in cancer biology research. During her undergraduate years, she also had the opportunity to participate in the Summer Undergraduate Research Program at the University of Texas Medical School at Houston, where she conducted research on retinal neurons. She was able to continue her research in the Department of Neurobiology and Anatomy at UT over three consecutive summers. This experience fostered Kathryn's passion for neuroscience.

While Kathryn says she considers some of her studies to fall under the category of hobbies, she has a variety of outside interests, as well. She enjoys baking, drawing, playing the piano, Irish dance, and language studies (Greek and Latin), even in the midst of graduate school. She is also an avid cyclist and swimmer and certainly finds

time to participate in sporting events in the greater Oklahoma City area.







Kathryn's long-term goal is to continue to develop new outside interests and proficiencies, even as a physician scientist. She hopes to practice in an academic setting, conducting translational research and teaching, in addition to providing patient care at various stages of her career.



PANELIST, GROUP 3

Andria Parker Medina, Ph.D.
MD/PhD Student
University of Oklahoma Health Science Center

Andria received her B.S. in Zoology with minors in History of Science and Spanish in 2003 from the University of Oklahoma. In 2009, she earned her PhD in Biochemistry and Molecular Biology from the University of Oklahoma Health Sci-

ences Center (OUHSC). Her doctoral studies focused on the membrane protein hyaluronic acid synthase and the manner in which it transports its product, hyaluronic acid.

Andria is currently a senior student in the MD/PhD program at OUHSC, which is an 8-year program in which students receive both graduate degrees. She is scheduled to graduate from medical school in Spring 2011, and she will pursue a career in Internal Medicine and medical research after graduation.

In junior high and high school, Andria participated in science fair competitions, and even competed in the International Science Fair two times. She was also very active in school civics, having served three years as class president. In college, she was a research assistant in a lab that studied limb regeneration, where she studied specific proteins that control the growth of crab limbs. She also participated in the NIH REU program at the University of Oklahoma during this time. Given her combined interest in medicine and science, she also spent time volunteering at several free clinics in order to gain more experience and insight into the world of medicine.

Andria was married in 2007, and in December 2010, she and her husband welcomed a baby girl to their family. Andria loves the Beatles, and recently took up playing the drums. When she has free time, she enjoys knitting, reading, playing Rockband with friends and spending time with her very large extended family.







PANELIST, GROUP 1

Laura C. Scott Zoology Student (Senior) Oklahoma State University

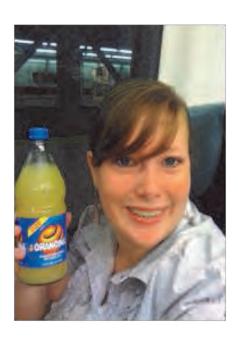
Laura graduated from Midwest City High School in 2006. That Fall, she entered Oklahoma State University with plans to major in Music Performance. After a few semesters, however, Laura

identified a passion for the life sciences and changed her major to Zoology. Now, she will be graduating in May 2011 with a degree in Zoology.

Laura is planning to attend a graduate school to obtain a masters degree in Genetic Counseling. Laura's career goal is to be a liaison between doctors, researchers and patients.

During her time at Oklahoma State University, Laura has been very involved in campus life as a Louis Stokes Alliance for Minority Participation in STEM Scholar, president of the Environmental Science Club and a member of many other campus organizations.

Laura has completed several research projects at OSU, including an independent project at the Oklahoma Aquarium entitled —The Effects of Captivity on *Nautilus pompilius*" and an NSF-sponsored project entitled, —Detection of Anthropogenic Organic Compounds in Surface Waters in Stillwater, Oklahoma"."





Teresa Seyfert, Ph.D. Veterinary Resident, Small Animal Internal Medicine OSU College of Veterinary Medicine

Dr. Seyfert attended junior and high school in Kansas, and took many honors and advanced placement courses. She was also involved in extracurricular activities such as cheerleading, National Honor Society, Future Problem Solving, Stock Market Team, Math Relays, and Retail Merchandising Competition (DECA). She worked at a local veterinary clinic as a kennel assistant during high school.

Dr. Seyfert received her Bachelor's of Science in Animal Science and Industry in the College of Agriculture at Kansas State University. She was a member and officer in various clubs, including Pre-Vet Club and Agriculture Ambassadors. She served as a liaison between the Pre-Vet Club and the local zoo volunteers, assisted with freshman student orientation in the College of Agriculture, and organized a program that allowed high school students to shadow college students. She worked as a kennel assistant during her summer and holiday breaks for further experience.

Dr. Seyfert attended the Kansas State veterinary school for four years, where she was active in clubs that focused on many different species, including exotic animals and large animals. She also became involved in several research opportunities in small animal toxicology, cattle nutrition and cellular physiology. After veterinary school, Dr. Seyfert completed a one-year small animal medicine and surgery internship program at Ohio State University. After that, she obtained a job as a daytime emergency veterinarian. Oklahoma State University accepted her into their small animal internal medicine residency program in 2008. In this role, she sees referral medicine cases from surrounding veterinarians, teaches veterinary students and assists interns with emergency work. She also worked on a research project studying the effects of a new drug to treat diabetes in cats, and has submitted a paper for publication in a scientific journal on this work. She will complete her residency in June 2011 and has accepted a job in Wichita. Kansas.

Shry

In her free time, Dr. Seyfert likes to walk her dogs, Max and Molly, with her husband and watch movies and TV. She also reads books (usually with her cat, Melvin, sitting on her lap), listens to music, and attends plays, concerts and college football games. She and her husband also enjoy travelling and visiting zoos and amusement parks.



PANELIST, GROUPS 1 & 3

Emily Sutton Meteorologist KFOR Television

Emily Sutton, a native of Chicago, came to KFOR television in Oklahoma City from WCYB/WEMT-TV in Bristol, Virginia, where she forecast the weather and reported the news. Prior to her position in Virginia, Emily worked as a meteorologist

for KMIZ-TV in Columbia, Missouri, where she gained valuable experience covering several severe weather and winter storm events.

Emily received dual degrees in Meteorology and Media Convergence Journalism from the University of Missouri. While there, she worked as a National Weather Service Observer and an Agriculture Forecaster for the entire state of Missouri. She earned many academic awards in college, including the Outstanding Senior Award from the Atmospheric Science Department.. She is a member of Omicron Delta Kappa and Chi Epsilon Pi Honor Societies. She also volunteered as a storm spotter for the Mizzou Storm Chase Team, and she looks forward to chasing again in the heart of Tornado Alley.

In her spare time, Emily likes to explore, finding new places to go and new things to do. She also loves getting involved in the community. In Bristol, Virginia, she served on the Habitat for Humanity steering committee with her church to help build a house for a family in need. Besides weather.

Emily's other passion is singing. In August 2009, Emily sang the National Anthem (photo/right) for ten thousand NASCAR fans at Bristol Motor Speedway. She also loves to cook, swim, dance, run, and travel.







Laura Vanderberg Chief Scientist University Multispectral Laboratories

Dr. Laura Vanderberg loves to learn. When in high school, she wanted to be the —nxt Jacques Cousteau" or be a newspaper reporter. She loved her science classes (especially AP biology), was captain of the varsity swim team, and co-editor of the school paper. For college, she chose a school far away from home (Auburn University in

Alabama) to help with the transition to independence. She missed home, but she wanted to explore and move away from the familiar.

Laura received her Ph.D. in Microbiology from North Carolina State University, where she was a DOE Environmental Management Waste Remediation fellow. During her graduate tenure, she spent an enjoyable summer at a Los Alamos National Laboratory (a DOE National Lab), and decided that she loved the environment and people. After completing her Ph.D., she promptly moved to Los Alamos, completing a postdoctoral research appointment and becoming a technical staff member. After seven years at Los Alamos, Laura was ready for a change and had the opportunity to move to Virginia Beach and begin working with the Special Operations military community, where she became the Nuclear, Biological and Chemical (NBC) science advisor and first PhD in her department. During Operation Iraqi Freedom, Laura was deployed overseas to help with the search for Weapons of Mass Destruction.

In late 2006, Laura completed a yoga teacher training program and took time off to travel the country. She and her dogs spent two months traveling the Western United States, particularly the Rocky Mountains. She fell in love with Cody, Wyoming, and for a short time, decided to let go of her science career and focus on yoga. In March 2007, Here Yoga Studio opened its doors. About a year later, Laura decided to get back into science, and she began working part-time with University Multispectral Laboratories (UML), a newly formed company in Ponca City, Oklahoma. She has refined

the balance of science and teaching yoga over time, and now serves as the Chief Scientist for the UML, spending one week each month in Oklahoma and telecommuting from Cody, where

she now owns two yoga studios.

Hobbies and activities that Laura enjoys include hiking, mountain biking, trail running, volunteering to judge science fairs, mentoring high school students, gardening, backpacking, skiing, horseback riding, spending time with her dogs, and yoga.





Michelle Lynn Zarantonello Biologist and Education Specialist Oklahoma Aquarium

As a young child, Michelle acquired the love of science; especially through observing her mother's respect of animals. Michelle's mother was the woman who stopped traffic to move a dead animal to the side of the road. Around their home, there was always an animals to love.

When Michelle entered school, biology and anything to do with science caught her attention. She knew that someday she wanted to work with animals. Perhaps become a veterinarian, but she wasn't sure. As she matured, she knew that she wanted to work with whales and dolphins at SeaWorld. Michelle started to research marine biology when I was she was in the tenth grade and decided Texas A& M would be the best choice, since she was land locked in Oklahoma. Michelle's financial situation dictated choice of schools, however, and she attended Northeastern State University in Tahlequah, Oklahoma where she received a scholarship playing the cello.

Michelle graduated from NSU in 2000 and her first job was with the Missouri Department of Conservation working on a 100-year study in the Mark Twain National Forest. She was really interest in reptiles, so the idea of chasing lizards and tagging them was right up her alley.

Zoo keeping eventually became Michelle's career path, and she has been a reptile keeper In New Orleans at the Audubon Zoo and a primate and small mammal keeper at the Tulsa Zoo. She took a temporary job as an environmental educator for the University of Georgia, which landed her in Jenks as an education specialist for the Oklahoma Aquarium. She thoroughly enjoys her job and it is the best of all the opportunities she's experienced all rolled into one. The Oklahoma Aquarium is not just her career, it is her joy.







"Thank You!" NASA Ambassadors

For Your Outstanding Contributions to the Conference!

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Caitlin Madl

Lydia Meador

Paige Meraz

Kaitlyn Orwig

Delisa Osborne

Toykeya Osborne

Mary Ann Phillips

Rebekah Ritchie

Robin Roberson

Jessica Roy

Shelby Sayre

Lacey Schatt

Laura Scott

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Brittanie Swift

Courtney Tolar

Ashlie Walker

Bethany Warnock

Lauren White

Fara Williams

Eleanor Zachery

Coordinators:

Victoria Duca-Snowden

Ann Nguyen

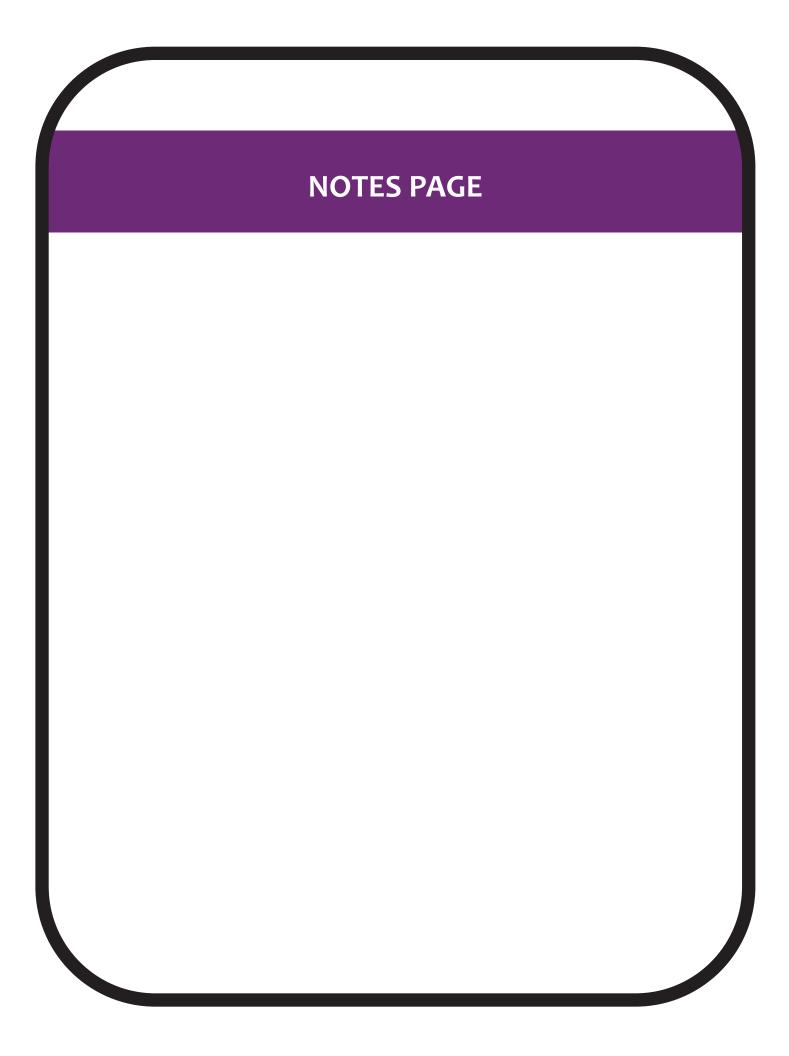
Stephanie Ponder

Dorinda Risenhoover











STUDENTS—SPECIAL ASSIGNMENT: SCAVENGER HUNT!

Students who choose to participate in the scavenger hunt will be placed in a drawing for lots of great prizes! Show your completed scavenger hunt form to the person at the door of your final session to receive a ticket to win prizes! Winners will be announced from 1:15-1:30 p.m. in the final session. Must be present to win.

Scavenger hunt instructions:

Scientists engage in inquiry. They ask questions using their personal perspectives to find out information to help them to solve problems, make decisions, or look at phenomenon in new ways. While you are not yet a scientist, choosing your college path or future career is a problem that you will have to investigate and attempt to solve over the next few years. You can engage in inquiry to find out more information to make your decision.

Who to ask?

Today, you have access to many schools and companies that are here to tell you about how they might help you achieve your goals. Take this opportunity to ask them about the degrees they offer or what skills they are looking for in future employees.

What to ask?

Think about difficulties that you might face in pursuing a career in science. Will there be a need for financial aid? Do you need to know what to major in for a certain career? Do you need to know what job a specific major would qualify you to do? Or do you wonder what you should do now in middle or high school to be able to do that job later?



How does the Scavenger Hunt work?

For the first four questions, visit four different booths in the atrium area and talk to a person at each of those booths. Write down where they work, their names and web addresses to get more information later. Ask them each a question and write down their answers in the spaces provided. In the final box, summarize something you learned during each session today.

Women in Science Conference Scavenger Hunt Form: School or Company: Who I Talked To: _____ Question I Asked:_____ Their Answer: _____ Web Address: School or Company: Who I Talked To: _____ Question I Asked:_____ Their Answer: _____ Web Address: School or Company: Who I Talked To: Ouestion I Asked: Their Answer: _____ Web Address: School or Company: Who I Talked To: Question I Asked:_____ Their Answer: Web Address: ____ The Session LAttended: Something I Learned: 1: 3: I learned if I want to become a ______ then I need to _____

Thank you for participating! Women in Science 201/conference

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