February 16-20
RESEARCH WEEK 2015

RESEARCH and Scholarly Activities

ResearchWeek.okstate.edu
Research Week 2015

Now in its 12th year, Research Week is an annual event celebrating the research and scholarly activity of students and faculty at Oklahoma State University. Featuring speakers, symposiums, performances and presentations, the week provides an excellent opportunity for those inside and outside the university to experience the value and impact of research.

We are excited to welcome National Public Radio science correspondent Ira Flatow as the Research Week keynote speaker. Flatow is an award-winning journalist and host of NPR’s Science Friday, a weekly call-in radio program that connects two million listeners to lively discussions about science, technology, health, space and the environment. Flatow will present “Unusual Patents: Where Do Ideas Come From?” on Wednesday evening. He will explore unusual sources for patents and discuss some well-known Americans through history who are not widely known for their patented ideas.

We invite you to join us for some or all of the events scheduled for the week. We also encourage you to like us on Facebook for all the latest details on OSU Research, including updates on Research Week.

ON DISPLAY FEBRUARY 16-20

Inspired Creations

Scientific investigation is at the heart of OSU Research Week, but the week-long celebration of research and scholarly activities is also a venue for artistic expression, especially works that reflect the role artists play in translating science to the general public. Exhibits of art created by OSU students as well as featured exhibits in the new OSU Museum of Art in the Postal Plaza Gallery highlight opportunities during Research Week to experience science through the eyes of artists.

Research Week Art Contest  Works of art recognized during the annual Research Week Art Contest will be on display all week in the Gardiner Art Gallery within the Bartlett Center for the Visual Arts on the OSU-Stillwater campus. Gallery hours are Monday through Friday from 8:00 am to 5:00 pm. The contest invites OSU students of any major to submit up to three works of art in various mediums that communicate something about science. The contest is an effort to acknowledge the important role artists play in translating science to the general public. Winning pieces become a part of OSU’s permanent collection and following Research Week are installed in the Henry Bellmon Research Center.

Visible Evidence Student Art Exhibition  A student art exhibition featuring compositions emphasizing scientific subjects will be on display in a gallery in the Student Union basement each day throughout Research Week. The exhibit Visible Evidence showcases the art creations of 2D design students inspired by the OSU Collection of Vertebrates and oil paintings based on images made using a scanning electron microscope from the OSU Microscopy Laboratory. A reception honoring these students and their works will be held on Friday, February 20, from 2:00 to 4:00 pm in the gallery. The exhibit is organized by multi-disciplinary faculty members Prof. Liz Roth, Department of Art, Dr. Karen McBee, Department of Integrative Biology, Dr. Charlotte Ownby and Ms. Lisa Whitworth, OSU Microscopy Laboratory.

OSU Museum of Art Featured Exhibits  The OSU Museum of Art hosts three exhibits during Research Week. The exhibit Frank Lloyd Wright’s Samara: A Mid-Century Dream Home uses original furniture, architectural fragments, textiles, historic photographs, home movies and documents to trace the building and three-decade history of a Wright-designed home in Indiana. A reception will be held on Thursday, February 19 from 5:00 to 7:00 pm. The first exhibit in a new OSU Museum of Art series featuring important New York artists highlights the work of James Rosenquist, who first achieved fame in the 1960s as a pop artist. James Rosenquist: Illustrious Works on Paper, Illuminating Paintings, is a survey of his works. The black-and-white photographs of Richard Buswell titled Close to Home: Photographs by Richard S. Buswell highlight the photographer’s abstract images of abandoned homesteads and majestic scenes depicting Montana landscapes. The museum is open daily from 11:00 am to 5:00 pm, Thursdays until 8:00 pm, and is located in the university’s new Postal Plaza Gallery, 720 S. Husband Street in downtown Stillwater.
Focus on Fulbright
The Fulbright U.S. Student Program is the largest U.S. exchange program offering opportunities for students and young professionals to undertake international graduate study, advanced research, university teaching, and primary and secondary school teaching worldwide. The grants were created shortly after World War II by Senator J. William Fulbright of Arkansas to promote “mutual understanding between the people of the United States and the people of other countries of the world.” Since then thousands of students, teachers, scholars and professionals have worked in more than 140 countries. The Fulbright Program remains one of the most successful U.S. initiatives to foster global understanding. The session is intended for undergraduate and graduate students interested in the Fulbright grants to fund research and study or English teaching abroad. Attendees will learn about the application process for the Fulbright U.S. Student grant program that provides up to a year of funding for travel, insurance and living costs in countries around the world. Presented by Ms. Kara Cummings, the session takes place Monday, February 16 at 4:00 pm in 218 Classroom Building.

FAPC Research Symposium
The Robert M. Kerr Food and Agricultural Products Center and the Institute of Food Technologists-Oklahoma section will hold its annual Research Symposium on Tuesday, February 17 from 8:30 am to 1:45 pm in the Food and Agricultural Products Center. The symposium will include oral and poster presentations of research conducted at the FAPC and OSU with a keynote address from Dr. Larry R. Steenson, Senior Principal Scientist of Food Protection Microbiology with DuPont Nutrition and Health, who will present “Use of Antimicrobials in Food: an Industrial Perspective.” Visit http://fapc.biz/workshops/2015-research-symposium/researchsymposium.

Kamm Lecture by Dr. Mary Howard-Hamilton
The OSU College of Education is set to host the 2015 Robert B. Kamm Lecture in Higher Education on Tuesday, February 17 at 10:00 am in room 010 Willard Hall. The Kamm Lecture annually serves as a policy-impacting lecture that brings higher education leaders and private and public sector leaders together to examine critical issues that will shape the future of Oklahoma and particularly the state’s higher education. The Kamm Lecture will be held for the 23rd time in 2015 with Dr. Mary Howard-Hamilton, the Raleigh Holmstedt Distinguished Professor in the Bayh College of Education at Indiana State University, serving as the keynote speaker. Howard-Hamilton has 37 years of experience in higher education and has published more than 90 articles and book chapters. She teaches in the Department of Educational Leadership - Higher Education Program at Indiana State.

“The Commercialization Ecosystem at OSU”
Many technologies developed at OSU have the potential to be commercialized and the university offers faculty and students a wealth of resources and guidance to aid with the commercialization process. Chief among those resources are the OSU Technology Development Center (TDC), which manages and protects intellectual property developed at OSU, and Cowboy Technologies, a university office set up to help entrepreneurs spin-off OSU technologies into successful businesses. TDC Director Dr. Steven Price and Cowboy Technologies Executive Director Daniel Will lead the session “The Commercialization Ecosystem at Oklahoma State University” on Tuesday, February 17 at 10:00 am in Case Study 1 on the 4th floor of the Student Union. The session explores the various resources available when commercializing OSU technology.

FAPC Research Symposium
8:30 am-1:45 pm
Food & Agricultural Products Center

Kamm Lecture by Dr. Mary Howard-Hamilton
10:00 am
010 Willard Hall

“The Commercialization Ecosystem at OSU”
10:00 am
Case Study 1, 408 Student Union

Celebrating Books by OSU Authors
11:30 am-1:30 pm
Anne Morris Greenwood Reading Room
Edmon Low Library

College of Education Research Spotlight
4:00-6:00 pm
Willard Hall Anderson Family Living Room

College of Arts & Sciences Three Minute Thesis Competition for Undergraduates -- Preliminary Competition
5:30 pm
3rd floor Classroom Building

Science Café OSU presents “Donna Shirley: From Oklahoma to NASA’s Mars Exploration Program and Beyond”
6:30 pm
Peggy V. Helmerich Browsing Room
Edmon Low Library

Woodwind Honors Recital
7:30 pm
Seretean Center Concert Hall
Celebrating Books by OSU Authors
The OSU Library honors OSU employees and students who have authored, co-authored or edited a book or published a creative work such as musical composition, art exhibit catalog or audio recording in the past two years. The purpose of Celebrating Books by OSU Authors is to recognize and honor these individuals’ achievements, encourage academic dialogue and ensure that works by OSU authors are available to the university community by adding these pieces to the OSU Library’s collection. This year’s come-and-go event takes place Tuesday, February 17 from 11:30 am to 1:30 pm in the Anne Morris Greenwood Reading Room of the Edmon Low Library.

College of Education Research Spotlight
The College of Education will host a showcase of faculty and graduate student research on Tuesday, February 17 from 4:00 to 6:00 pm in the Willard Hall Anderson Family Living Room. The event will demonstrate the diverse scholarship areas represented by the college, such as teacher preparation in STEM areas, aviation and homeland security, public health, educational psychology and counseling among others. Posters summarizing recent work will be displayed and faculty and students will be on hand to answer questions with a reception following.

Three Minute Thesis Competition for Undergraduates -- Preliminary Competition
The College of Arts & Sciences Student Council will host a Three Minute Thesis Competition for undergraduate students. The competition is open to all undergraduate students with majors in the College of Arts & Sciences. Undergraduates will present their research while gaining confidence and practice in communicating their findings to a general audience. Cash prizes will be awarded to first through fifth place finishers (ranging from $250 to $1,000). Preliminary competition rounds will be held on Tuesday, February 17 at 5:30 pm on the 3rd floor of the Classroom Building. The final round will be held on Thursday, February 19 at 6:00 pm in 035 Murray Hall. The event is sponsored by ConocoPhillips and the Dean’s Excellence and Scholarship Fund. For questions, participants can email undergraduate3mt.okstateas@gmail.com.

Science Café OSU presents
“Donna Shirley: From Oklahoma to NASA’s Mars Exploration Program and Beyond”
Donna Shirley’s early fascination with Mars led her to study aeronautical engineering at the University of Oklahoma in the 1950s when it was rare for women to pursue an engineering degree. At this special Science Café she will share amazing highlights from her career including managing the Mars Exploration Program at NASA’s Jet Propulsion Laboratory and serving as the founding director of the Science Fiction Museum and Hall of Fame in Seattle. Her biography “Managing Martians: The Extraordinary Story of a Woman’s Lifelong Quest to Get to Mars” will be available for purchase and signing. The talk is Tuesday, February 17 at 6:30 pm in the Peggy V. Helmerich Browsing Room of the Edmon Low Library.

Woodwind Honors Recital
The students of the OSU Woodwind Area will present an auditioned honors recital in the Seretean Center Concert Hall on Tuesday, February 17 at 7:30 pm. This event is free and open to the public.

Wednesday 2-18
OSU Research Symposium
The entire university community is invited to attend the 26th annual OSU Research Symposium to see the diversity of research performed by OSU graduate and undergraduate students. Bringing together researchers from a variety of disciplines to share in the scholarly pursuit of new knowledge is key to OSU’s mission. Research represents the culmination of a learning experience and acquiring the ability to perform research is a key component of OSU’s undergraduate and graduate degree programs. The OSU Research Symposium provides a forum for students to see the work of their peers, especially those in other departments. The Research Symposium is also a chance for students to share what they have learned with a larger audience. It is a forum where students become educators showcasing research projects that build on and enrich the university’s work across the disciplines. Their presentations provide an opportunity for students, faculty and the community to discuss cutting-edge research topics, and to examine the connection between research and education. The Research Symposium provides exposure to the breadth of research and intellectual endeavors performed throughout the university. This year’s paper and poster presentations take place on Wednesday, February 18 through Friday, February 20 on the 4th floor of Student Union. A presentation schedule is available at: http://gradcollege.okstate.edu/researchsymposium.

Sigma Xi Young Investigator Lecture by Dr. Janette Steets
“Evolutionary Ecology of Plant Reproduction”
12:30 pm
108 Noble Research Center

RESEARCH WEEK KEYNOTE
Ira Flatow
“Unusual Patents: Where Do Ideas Come From?”
7:00 pm
Student Union Theater
The OSU Chapter of Sigma Xi awarded Dr. Janette Steets, Department of Botany, the Young Investigator Award in recognition of her early career achievements. Steets will present the Sigma Xi Young Investigator Lecture as part of this honor. Interactions between plants and their pollinators and herbivores have a profound influence on plant reproductive success and reproductive trait evolution. The first part of the talk will focus on the ecological and evolutionary consequences of plant-pollinator interactions. The majority of flowering plant species are dependent on animal vectors to transfer pollen among flowers to facilitate sexual reproduction. Having a sufficient amount of pollen is an important determinant of plant fitness, and thus a major factor influencing plant population persistence and evolutionary change. A global synthesis of studies of pollen limitation of plant reproduction will be presented. The second part of this talk will focus on the role of ecological interactions in plant mating system expression and evolution. Plants frequently reproduce through a mixture of cross- and self-fertilization, and a number of ecological factors have been proposed to explain the evolutionary maintenance of this mixed strategy. In this talk, research on the role of predispersal seed predators and their parasitoids for the reproductive success and mating system of *Ruellia humilis* (fringeleaf wild petunia) will be presented. Her presentation takes place Wednesday, February 18 at 12:30 pm in room 108 Noble Research Center.

**KEYNOTE SPEAKER**

**Ira Flatow**

**Host of National Public Radio’s Science Friday**

“Unusual Patents: Where Do Ideas Come From?”

National Public Radio science correspondent Ira Flatow is an award-winning journalist and host of NPR’s Science Friday, a weekly call-in radio program that connects 2 million listeners to lively discussions about science, technology, health, space and the environment. In his 35-year career, Flatow has covered cutting-edge science for a variety of programs, including the PBS series *Big Ideas*. For six years, Flatow was host and writer for the Emmy award-winning *Newton’s Apple* on PBS. He has also been a science reporter for CBS, Westinghouse and CNBC. Flatow is the author of numerous books, most recently, “Present at the Future: From Evolution to Nanotechnology, Candid and Controversial Conversations on Science and Nature.”

On television, Flatow has talked science on programs including: *The Today Show*, *Oprah*, *Newton’s Apple* and guest starred on *The Big Bang Theory*.

Flatow will present “Unusual Patents: Where Do Ideas Come From?” on Wednesday, February 18 at 7:00 pm in the Student Union Theater. He will explore unusual sources for patents and discuss some well-known Americans through history who are not widely known for their patented ideas. The talk is free and open to the public, but seating is limited so guests should arrive early.
Council on Grantsmanship and Research Spring Meeting
OSU Research Week is pleased to host the spring semi-annual meeting of the Council on Grantsmanship and Research (CGR). The mission of the CGR is to offer support and resources to facilitate grant writing and program review across institutions of higher education in the state of Oklahoma. The CGR’s membership is comprised of sponsored program officers and grant writers from Oklahoma’s regional and research universities. The organization focuses on the importance of using external funding as a means to drive intellectual capital on campuses and as a means to support high-quality learning experiences for students. It encourages the successful pursuit of funding opportunities through collaboration and provides a network of support to advance grantsmanship and research activities among Oklahoma’s institutions of higher education.

OSU in Tulsa’s Research Day Keynote Presentation
OSU in Tulsa is excited to hold its annual Research Day. Thursday’s events include lunch and a keynote presentation beginning at noon in Founders Hall on the OSU-Center for Health Sciences campus. Those interested in attending the lunch presentation should RSVP to Elizabeth Cronn at cronn@okstate.edu by February 13.

Interdisciplinary Toxicology Symposium
The Center for Veterinary Health Sciences will host a half-day Interdisciplinary Toxicology Symposium on Thursday, February 19 at 1:00 pm. Included in the schedule will be PhD candidate/graduate fellow presentations followed by lectures by experts in the field of toxicology. Dr. Robert Tanguay, an internationally known toxicologist, will deliver the Sitlington Lecture in Toxicology. Tanguay is a distinguished professor in the Department of Environmental and Molecular Toxicology at Oregon State University. Tanguay has pioneered the use of zebrafish as a toxicology model and recently developed automated high throughput instrumentation to accelerate phenotype discovery in zebrafish. Phenotypic anchoring coupled with the inherent molecular and genetic advantages of zebrafish are used to define the mechanisms by which chemicals, drugs and nanoparticles interact with and adversely affect vertebrate development and function. Other expert presentations will include Dr. Ken Olivier from Merrimack Pharmaceuticals and Dr. Anna Lowitt from the United States Environmental Protection Agency discussing toxicology and drug development, and toxicology in risk assessment. The symposium will be held in the McElroy Hall Auditorium in the Center for Veterinary Health Sciences and will conclude with a reception at 5:00 pm in the Alumni Conference Room.

Sociology Research Symposium Keynote
by Dr. Rachel Einwohner
Dr. Rachel Einwohner will present the keynote address for the Sociology Research Symposium. Her research focuses on the dynamics of protest and resistance, and her interests include questions related to protest effectiveness, the role of gender and other identities in protest dynamics, and protesters’ sense of efficacy. She has explored these topics with theoretically-driven analyses of a diverse set of movements and cases of protest, including the U.S. animal rights movement, the college-based anti-sweatshop movement, and Jewish resistance during the Holocaust. Her current work, which has received funding from the National Science Foundation and the National Endowment for the Humanities, examines the efforts to create resistance movements in the Jewish ghettos of Nazi-occupied Warsaw, Vilna, and Lodz. Her talk is Thursday, February 19 at 3:00 pm in 101 Agricultural Hall.

OSU Research in Africana Studies
The Center for Africana Studies, in collaboration with the Department of Psychology, is presenting a research panel on topics relevant to the African diaspora. The goal of this panel is to expose the university community, including undergraduate and graduate students, to some of the current African diaspora research being conducted by members of the OSU community. The panel is scheduled for Thursday, February 19 at 3:30 pm in 035 Murray Hall. For more information, please visit www.africana.okstate.edu.
Three Minute Thesis Competition for Undergraduates -- Final Competition
The College of Arts & Sciences Student Council will host a Three Minute Thesis Competition for undergraduate students. The competition is open to all undergraduate students with majors in the College of Arts & Sciences. Undergraduates will present their research while gaining confidence and practice in communicating their findings to a general audience. Cash prizes will be awarded to first through fifth place finishers (ranging from $250 to $1,000). Preliminary competition rounds were held on Tuesday. The final round will be held on Thursday, February 19 at 6:00 pm in O35 Murray. The event is sponsored by ConocoPhillips and the Dean’s Excellence and Scholarship Fund. For questions, participants can email undergraduate3mt.okstateas@gmail.com.

“Research, Culture and Community with Oklahoma’s Hispanic/Latino Population”
In addition to OSU Research Week, the Hispanic Student Association (HSA) will host Hispanic Awareness Week February 16-20. The Hispanic Student Association will host with the OSU Library, “Research, Culture and Community with Oklahoma’s Hispanic/Latino Population.” This presentation by Dr. Lupita Fabregas and Dr. Ron Cox will present the research that addresses factors for dropping out of school, significance of learning different cultural competencies and talk about the “Juntos” program, which is an initiative to help Latino students succeed. With this presentation we hope to bring awareness to various Hispanic/Latino issues within education as well as programs and research that help address the same. The presentation will be on Thursday, February 19 at 6:00 pm in the Peggy V. Helmerich Browsing Room of the Edmon Low Library.

OSU Wind Ensemble Concert
The OSU Wind Ensemble will present a concert featuring the works of Mikhail Glinka, Paul Hindemith, Dan Welcher, and Joseph Schwantner on Thursday, February 19 at 7:30 pm in the Seretean Center Concert Hall. Tickets are $8 for general admission and $6 for students and senior citizens. Tickets are available in the music office during business hours and the box office will open one hour before the event. Tickets are also available online at https://marketplace.okstate.edu.

Friday 2-20

OSU in Tulsa’s Research Day
OSU in Tulsa’s Research Day highlights the creative and innovative research projects underway by OSU students and faculty at OSU Center for Health Sciences and OSU-Tulsa. Friday’s events will include oral presentations and poster presentations by OSU-CHS and OSU-Tulsa students and faculty. For more information on the full day’s events, contact Elizabeth Cronn at 918-561-1400 or visit http://www.osu-tulsa.okstate.edu/research/researchday.

Sociology Research Symposium
The Sociology Research Symposium is an opportunity for sociology graduate students to present current research projects. The symposium is scheduled for Friday, February 20 from 9:00 am-4:00 pm in 236 Human Sciences. The symposium’s keynote address by Dr. Rachel Einwohner will be on Thursday, February 19 at 3:00 pm in 101 Agricultural Hall.

Faculty Recital Series featuring Dr. Anné-Marie Condacse
OSU Faculty Soprano, Dr. Anné-Marie Condacse will present a recital featuring Israeli music in cooperation with guest pianist Ido Ariel. The performance will take place on Friday, February 20 at 7:30 pm in the Seretean Center Concert Hall. This event is free and open to the public.