

**9TH ANNUAL
PROMOTING UNDERGRADUATE RESEARCH CONFERENCE
Friday, Sept. 28, 2018**

**Virtual Communities of Undergraduate Research
and Scholarly Activities**



SPONSORED BY



AGENDA

	Mountain Time Zone	Central Time Zone	Eastern Time Zone
Oklahoma Presentations NSU - Webb Tower OU - Bizzell Library UCO – Nigh University Center OSU – Student Union	9-10 a.m.	10-11 a.m.	11 a.m. - 12 p.m.
Question and Answer/ Transition	10-10:15 a.m.	11-11:15 a.m.	12:00-12:15 p.m.
Spotlight Award	10:15-10:30 a.m.	11:15-11:30 a.m.	12:15-12:30 p.m.
Brunch/Lunch	10:30-11:15 a.m.	11:30 a.m.-12:15 p.m.	12:30-1:15 p.m.
Keynote Presentation Washington, D.C.	11:15 -11:45 a.m.	12:15 -12:45 p.m.	1:15-1:45 p.m.
Question and Answer/ Transition	11:45 a.m.-12 p.m.	12:45-1:00 p.m.	1:45-2 p.m.
Maryland Presentations Auditorium Towson University	12:00-1:30 p.m.	1:00-2:30 p.m.	2:00-3:30 p.m.
Question and Answer/ Transition	1:30-1:45 p.m,	2:30-2:45 p.m.	3:30-3:45 p.m.
Student Panel	1:45-2:45 p.m.	2:45-3:45 p.m.	3:45-4:45 p.m.
Question and Answer/ Transition	2:45-3:00 p.m.	3:45-4:00 p.m.	4:45-5:00 p.m.
Colorado Presentations Eaton Humanities Presentation/Question and Answer	3:30-4:30 p.m.	4:30-5:30 p.m.	5:30-6:30 p.m.
Closing	4:30-4:45 pm	5:30-5:45 p.m.	6:30-6:45 p.m.

PRESENTATIONS



Oklahoma Faculty Panel:

University of Central Oklahoma Associate Professor Dr. David Chapman, College of Business: **An ongoing research project that is a collaborative effort with David McIlhatton, Senior Research Fellow at the University of Coventry in England. The project examines redevelopment in the city of London and its impact on community. Dr. Chapman will present.**

Dr. Darrell Townsend II, Vice President of Ecosystems and Watershed Management with the Grand River Dam Authority

A project with Northeastern State University undergraduate students in new and innovative approaches to multifaceted watershed management.



Harford Community College Faculty Panel:

Engaging and Facilitating Undergraduate Research Through Technology, Practical Experiences, and Intercollegiate Competition

Jaelyn Madden, Assistant Professor of Biology and Biotechnology:

Facilitating Learning by Doing: Course-Based Undergraduate Research Experiences (CUREs) in the Undergraduate Biology Lab

Regina Roof-Ray, Assistant Professor of Psychology:

Engaging Students in the Research Process Through Shared Technology

Ann Shugars, CFA, Assistant Professor of Economics:

Scholarly Research for Intercollegiate Competitions

Parita Vithlani, Assistant Professor of Psychology:

Innovative Educational Techniques Outside the Classroom: Academic Conferences and Networking Opportunities



University of Colorado Faculty Panel:

Dr. Susan Guinn-Chipman:

Instruction and Exhibits Program Coordinator, University of Colorado Boulder Libraries – Active Learning in Letterpress Print Technology

Dr. Colleen Berry, Associate Director and Instructor, Center for Asian Studies:

Asian Futures: Cultivating Undergraduate Research in the Asian Studies Major

Dr. Danielle Lyles, Instructor - Applied Mathematics

Dr. Katharine Semsar, Assistant Director, Miramontes Arts & Sciences Program:

Connecting our Cohorts: Visualizing the Path of Scholarly Work

Dr. Angela Thieman Dino, Senior Instructor - Engineering Leadership Program (ELP)

For more information about the University of Colorado presentations, which are part of a larger set of presentations, visit: www.colorado.edu/urop/outreach/events/2018-best-practices-colloquium.

KEYNOTE SPEAKER



Ashley Finley is the senior advisor to the president at the Association of American Colleges and Universities (AAC&U). She was previously the associate vice president for academic affairs and dean of the Dominican Experience at Dominican University of California and also national evaluator for Bringing Theory to Practice. In her current role, Finley guides strategic initiatives and planning across AAC&U's program offices in collaboration with association leaders and member campuses. Finley's research and campus engagement focuses on connecting effective implementation of high-impact learning, assessment design, and equity with institutional outcomes for student success and strategic planning. A significant component of these efforts has been the highlighting of students' intrapersonal growth and development with their learning and civic engagement. She has published a number of articles, book chapters, and monographs, including *Civic Learning and Teaching: Assessing Underserved Students' Engagement in High-Impact Practices*; and "Well-Being: An Essential Outcome for Higher Education." She began her career as a sociology faculty member at Dickinson College. Finley received a bachelor's degree from the University of Nebraska-Lincoln and a master's and doctoral degree, both in sociology, from the University of Iowa.

Keynote Presentation:
Connecting the Person with Practice: Measuring the Full Value of Undergraduate Research

High-impact educational practices, like undergraduate research, have been shown to contribute in significant positive ways to students' cognitive development, retention, and graduation. However, what is often underappreciated are the ways in which these learning experiences also contribute to students' intrapersonal development and sense of well-being (e.g. resilience, belonging, self-worth). By more explicitly connecting learning and well-being, campus conversations about whole student development move beyond the boundaries of student affairs and into the innovative territory between the curriculum and co-curriculum. In this space, the value of students working through challenging problems, persevering to complete projects, and the resilience to overcome failure are seen as valued parts of the learning process, rather than fringe benefits. This session will explore why these outcomes are integral to fully assessing the benefit of high-impact practices, like undergraduate research, and how they contribute to institutional commitments to equity and student success. National research and campus-based models for connecting student learning and well-being as a meaningful bridge between classroom learning and students' personal development will be shared.

SESSION SPEAKERS

OKLAHOMA



Dr. David Chapman, associate professor in the finance department, University of Central Oklahoma, also teaches real estate courses. Chapman is a licensed real estate broker in Oklahoma and owns Realty1, LLC – a real estate company with annual sales in excess of \$25 million. In 2009, he successfully sold a mortgage company that had annual loans in excess of \$20 Million. He also manages a multimillion-dollar real estate portfolio including office buildings, apartments and single-family homes. He owns a development company, subURBAN Development, LLC which specializes in urban design and development projects. He is passionate about urban real estate and holds the Congress of New Urbanism Accreditation. Before his involvement in real estate, Chapman owned several technology companies including ExecuTain of Oklahoma Inc. and Clientele Solutions Inc. These innovative technology companies received both the “Metro50” and OVF50 awards in 1996 and 1997 with more than 200 percent growth. These companies were successfully sold in June 2001. He served as chairman for Vistage International, a worldwide organization focusing on increasing the effectiveness and enhancing the lives of CEOs. In his 10-year role of chairman, he had the opportunity to coach and facilitate challenges and issues for more than 60 CEOs in the Oklahoma business market. Chapman was the host of a regional television show called “Expert Talk” from 1999 to 2001. He holds a commercial pilots license, flight instructor ticket, and airframe and power plant license spending more than five years on contract to the U.S. Air Force through General Dynamics Corp. training United States and foreign Air Force pilots, engineers and maintenance personnel on the technology of the F-16 Fighter.



Dr. Darrell Townsend II, vice president of Ecosystems and Watershed Management with the Grand River Dam Authority, holds a doctorate in ecology, Department of Natural Resource Ecology and Management, from Oklahoma State University. His expertise lies in development and coordination of new and innovative approaches to multifaceted watershed management, focusing on broad-scale conservation and restoration throughout a complex multi-jurisdictional watersheds.

SESSION SPEAKERS

COLORADO



Dr. Colleen Berry, associate director and instructor, Asian Studies Program at the University of Colorado, spent several years in Taiwan studying Mandarin before receiving a master's degree from the Jackson School at the University of Washington. She then led tours in China for 12 years before and during her doctorate work in Chinese literature at Indiana University. She wrote her thesis while living in Japan for four years where she also studied Japanese and worked for a Japanese company. After that, she taught Mandarin, Japanese, and Chinese literature at the University of Manitoba before moving to the University of North Dakota where she was an associate professor of Chinese Studies.



Dr. Susan Guinn-Chipman, instruction and Exhibits Program Coordinator at the University of Colorado Boulder Libraries, earned her doctorate in early modern European history at CU and has taught a wide range of courses in European history and art history. Her more recent research examines the religious and secular spaces of disease and quarantine in northern England. Over the course of her research for the Stainforth project, she has developed quite a fondness for Rev. Francis John Stainforth and his family and the nineteenth-century spaces of London, and beyond, they inhabited.



Dr. Danielle Lyles, instructor of Applied Mathematics at the University of Colorado, received her doctorate in Applied Mathematics from Cornell University, where she studied mathematical neuroscience. Following Cornell, Lyles had an National Science Foundation Mathematical Sciences Postdoctoral Fellowship at the University of California, Davis in the field of theoretical spatial ecology. There, she continued her use of hybrid modeling techniques to explore the interplay between random “noise” and oscillations.



Dr. Katharine Semsar, assistant director, Miramontes Arts and Sciences Program, at the University of Colorado, received her doctorate from North Carolina State University where she studied social and hormonal influences on coral reef fish behavior. She continued her training on the physiological bases of behavior studying genetic models of stress-related behavior during postdoctoral training at University of Pennsylvania. In 2007, she moved to Boulder to become a fellow with the Science Education Initiative in the Integrative Physiology department. Semsar received a 2016 Chancellor's Award for Excellence in STEM Education.



Dr. Angela Thieman Dino, senior instructor, Engineering Leadership Program (ELP), at the University of Colorado, was a visiting fellow for the Law School's Center for Energy and Environmental Security. Her anthropological research has focused on refugees, Bosnia-Herzegovina, and African-American middle-school girls in Denver. She has participated in founding and governing various local, national and international non-profit organizations with social justice, education and development missions. Her leadership courses, trainings and lectures reflect a proclivity for leadership challenges that are especially complex and require extraordinary ingenuity.

SESSION SPEAKERS

MARYLAND



Jaelyn Madden, assistant professor of biology and biotechnology at Harford Community College, completed a bachelor's degree in biology at Saint Vincent College and a master's degree in biotechnology at Johns Hopkins University. She is an American Society for Microbiology Biology Scholar, a member of the Ethics Network for Course-based Opportunities in Undergraduate Research (ENCOUR) and the Community College Bio INSITES network for the facilitation of discipline-based educational research, and the program committee vice-chair for the American Society for Microbiology Conference for Undergraduate Educators. Madden has facilitated undergraduate research in introductory major's biology, introductory biotechnology, and introduction to research methods courses. Her current research focuses on the impact of course-based research projects on introductory biology students' content knowledge, attitudes toward scientific research and laboratory skills, and self-identity within the scientific community.



Regina Roof-Ray, assistant professor of psychology at Harford Community College, has taught for more than 20 years. She focuses on integrating a variety of engagement strategies and innovative technology to help students succeed in class. An example of this is her use of shared iPads to engage students in the research process. She utilizes assessment to better facilitate student learning. In addition to serving on various college committees including Faculty Council and the Learning Assessment Committee, Ray played an instrumental role in the implementation of HCC's assessment management system. Ray has spoken both locally and nationally on teaching and engagement strategies and assessment best practices.



Anne Shugars, assistant professor of Economics at Harford Community College, has taught for more than 11 years and is also a chartered financial analyst. Shugars has recently led two, back to back, student teams to first place in the Maryland Sustainable Growth Challenge (MSGC). The MSGC is an annual competition hosted by the Maryland Department of Planning that engages students from four-year universities and community colleges. The competition enables teams to conduct community planning exercises, analyze economic, social and environmental aspects of sustainable growth and develop creative community solutions. Prior to teaching she was a vice president at an institutional money management firm in Washington D.C. She worked as an institutional investment analyst and money manager for more than 16 years.



Parita Vithlani, assistant professor of psychology at Harford Community College since 2014, encourages students to become active learners using various hand-on activities in the classroom and by encouraging participation in extracurricular events. She co-hosts an undergraduate research conference annually to provide an avenue for students to present their work and learn what their peers are doing. Additionally, she advises Psi Beta Honor Society through which she provides networking and educational opportunities for her students within the field of psychology.

STUDENT PANEL SPEAKERS



Beth Anderson, studio art major at the University of Central Oklahoma, has received two Research, Creative, and Scholarly Activities (RCSA) grants to support her research at archives in London. Anderson's research focuses on women artists in World War I and World War II. Anderson has presented her research at a number of conferences including the National Conference on Undergraduate Research and the Asian Studies Development Conference.



Summer Bottomley, majoring in biology at Harford Community College, has participated in a variety of undergraduate research opportunities, including a course-based research project focusing on identification of *Ledebouria socialis* 'violacea' via DNA barcoding. In addition, she completed internships at HCC, where she used bioinformatics to identify potential horizontal transfer between *Y. pestis* and bacteriophages, and at Aberdeen Proving Ground, where she focused on the use of additive manufacturing, 3D printing, for the development of dry style electrodes for electroencephalogram-wear for real-world neuroimaging. Bottomley has presented her research at the Maryland Collegiate STEM Conference, HCC STEM Day, seminars at Aberdeen Proving Ground, and the HCC Imagination Fair.



Daniel Hayden, a plant biology major with a biotechnology concentration at the University of Oklahoma, plans to graduate in spring 2019 and pursue a doctorate in plant biology. Hayden conducts research in the lab of Dr. Laura Bartley in the department of microbiology and plant biology. The Bartley lab researches the cell wall of grasses and how we can improve biomass yields for the purposes of bioenergy. Hayden specifically look at how the cell wall affects plant-fungal interactions in the roots. He developed this project from the research in the Bartley lab along with research experience at the University of Arizona and abroad at the University of Cambridge. Hayden was awarded the Udall Scholarship for his work in the environment and devotion to Native American issues.



Katy Felkner, a junior double major in computer science and Letters, will graduate from the University of Oklahoma in May 2020. She has worked as an undergraduate research assistant for the Digital Latin Library since her freshman year. The DLL's mission is to publish high-quality digital critical editions of Latin texts, and her research focuses on developing Python scripts to automate the encoding process. Felkner has presented this research at the National Conference on Undergraduate Research and the Classical Association of the Middle West and South Annual Meeting. This summer, she attended a National Endowment for the Humanities Institute on Advanced Topics in the Digital Humanities. She is the recipient of the Rita H. Lottinville Prize and the President's Award for Outstanding Sophomores. Katy is passionate about advocating for diversity in STEM and serves on the executive boards of Out in STEM and Alpha Sigma Kappa - Women in Technical Studies.



CheyAnne Youngblood, a senior in the cell and molecular biology program at Northeastern State University, is an OK LSAMP scholar. Since her sophomore year, she has worked on the Broken Arrow campus with Dr. Kyeorda Kemp. Their work focuses on the immune system and it's response to cytokines. Through this work she has attended the Vanderbilt Summer Science Academy and won first place at Undergraduate Research Day on the NSU campus. She has also attended and presented at Tulsa Research Day, the American Association of Immunologists annual meeting in Austin TX, and the National IDeA Symposium of Biomedical Research Excellence in Washington DC.

SPOTLIGHT AWARD



This spotlight recognition has been awarded to programs of excellence promoting Undergraduate Research for eight years. This year Chancellor Glen Johnson will present the honor to the University of Central Oklahoma for its role in hosting the National Undergraduate Research Conference at UCO in April 2018. UCO welcomed to the Edmond campus 5,000 student presenters and faculty research mentors representing national and international colleges and universities. Students selected through a competitive review process represented all academic disciplines sharing their research as a scholarly poster, oral presentation, art exhibition, or creative performance. NCUR provided a significant economic impact to Edmond and the Oklahoma City metro and was an exceptional opportunity to support and engage with the best and brightest students across the nation.



University of Central Oklahoma President Don Betz, Ph.D., has enjoyed a distinguished career in higher education that spans more than 45 years, developing a reputation for teaching and encouraging students, and leadership development. Betz holds a Bachelor of Arts in Political Science and Philosophy from the University of San Francisco, as well as a master's degree and a doctorate in International Studies from the Korbel School of International Studies at the University of Denver.



Glen D. Johnson is the chief executive officer for the Oklahoma State System of Higher Education. As Chancellor, he leads a state system comprised of 25 state colleges and universities, 10 constituent agencies, two higher education centers and independent colleges and universities coordinated with the state system, OneNet and the Oklahoma College Assistance Program. Johnson became the eighth Chancellor of the Oklahoma State System of Higher Education in January 2007 after a national search. Before assuming the role of Chancellor, Johnson served as president of Southeastern Oklahoma State University in Durant for 10 years. Johnson also served as director of public policy at the University of Oklahoma and adjunct professor of law at the University of Oklahoma College of Law. Prior to his work at OU, Johnson served in the Oklahoma House of Representatives from 1982-1996 and was Speaker of the House from 1990-1996. At the time of his election as speaker, he was the youngest sitting speaker in the United States. In 2006, Johnson was inducted into the Oklahoma Hall of Fame, which is the highest honor an Oklahoman can receive. Johnson is an honors graduate of the University of Oklahoma, with an undergraduate degree in political science and a juris doctorate from the University of Oklahoma College of Law. He is also a member of Phi Beta Kappa and received an honorary doctorate of humane letters from Oklahoma City University in 2009.

STEERING COMMITTEE



Sara Barnett, of the Muscogee (Creek) tribe, is director of the Center for Tribal Studies at Northeastern State University. In 2004 Barnett became the first in her family to earn a college degree and since then, has continued to pursue her passion for advancing educational opportunity for low income, first generation, and minority students. She received her bachelor's degree in Psychology and Master of Education in School Counseling, both from NSU. Her professional experience includes working with the TRIO federal grant programs, as an institutional grant writer and high school teacher. Barnett is involved in several professional organizations and currently serves as the president-elect of the Gates Millennium Scholars Alumni Association.



Dr. Michael Faneros is the student programs coordinator in the Office of Undergraduate Research at the University of Oklahoma. He also teaches as an adjunct for the Department of Psychology. Faneros' research interests include individual differences in cognitive processes, especially those that impact educational and professional human factor performance. Additionally, Faneros worked with the Center for the Study of Human Operator Performance. He worked closely with undergraduate research assistants by training them in collection procedures, confidentiality, and gave feedback to their own research ideas.



Joan Gabriel has been Director of the Undergraduate Research Opportunities Program (UROP) at the University of Colorado, Boulder since 2003. During Joan's tenure UROP has increased outreach to underrepresented students and departments, developed the innovative Department Development Grants, established an Undergraduate Mentor Award and added a sister program, Professional and Academic Conference Endowment (PACE) that funds undergraduates to present their work at professional conferences or exhibitions. She holds a Master's Degree in English Literature and a Ph.D. in American Literature from the University of Colorado



Marc Klippenstine, received his Bachelor of Arts from the University of Regina and his Master of Arts and doctoral degree from York University in Toronto, Ontario, Canada. He is currently an associate professor of Psychology at East Central University and has been the institution's institutional review board (I.R.B.) committee chair since 2010. His area of research is primarily in the intersection of law and social psychology, with a focus on the role of victim emotions in cases of sexual assault. As ECU is primarily a teaching university, he has instituted an extensive undergraduate program of research in psychology, with the goal to expose students to the research side of the discipline. This has included the development of a three-course rotation that includes exposure to the research process, and working with honors students in the area of psychology.

STEERING COMMITTEE



Linda Mason is part time coordinator of grantwriting for the Oklahoma State Regents for Higher Education, having retired from the position in 2016. She provides grantsmanship empowerment to all Oklahoma higher education institutions, focusing on the undergraduate institutions. She has written, assisted in writing and directed projects for hundreds of grants for hundreds of millions of dollars. She teaches an University of Central Oklahoma graduate course, Grant Proposal Writing. She earned a Doctor of Education in Curriculum and Instruction in 1974 from Oklahoma State University. She has reviewed grants for the National Science Foundation, the Corporation for National and Community Service, the United States Department of Labor, the United States Department of Health and Human Services, the United States Department of Education, the State Regents, the Oklahoma Department of Commerce, and the Oklahoma Department of Transportation. She was awarded the National Council of University Research Administrators International Research Fellowship in 2013 for study at Brunel University, London.



Tim O'Neil has been the assistant director of the Undergraduate Research Opportunities Program (UROP) at the University of Colorado Boulder since 2016, where he also manages the Professional and Academic Conference Endowment (PACE) and facilitates the Norlin Curiosity Lab for second-year students working on research, scholarly and creative projects. Building on institutional momentum, O'Neil created new online application and assessment systems, shepherded the formation of a faculty advisory board, developed novel events (such as the Sidewalk Symposium) and worked with campus partners to secure a McNair grant. He has been a member of the Promoting Undergraduate Research Conference planning committee since its formation in 2009 and been recognized for "Excellence in Undergraduate Research" by the Oklahoma State Regents for Higher Education. O'Neil is a former Jacob K. Javits Fellow and holds a master's degree in English from Oklahoma State University.



Coral Rewasiewicz is currently the program coordinator of the OSU-HHMI program at Oklahoma State University, which was made possible by a grant through the Science Education program. She received her bachelor's degree in psychology from the University of Central Florida. Her role focuses on providing authentic research experiences to undergraduate students interested in the life sciences. She works with scholars starting in freshman year and provides them with opportunities to enhance their research skills and professional development through faculty mentorship, educational seminars, campus events, social outreach, and ambassador work.

STEERING COMMITTEE



Michael Springer is the faculty director of the University of Central Oklahoma's Office of High-Impact Practices (OHIP) and an associate professor in the Department of History and Geography. As director of OHIP he oversees undergraduate research opportunities such as the Research, Creative and Scholarly Activity (RCSA) grant program and student participation in events such as Oklahoma Research Day and the National Conference on Undergraduate Research. Springer has a doctoral degree in history from the University of St. Andrews, Scotland, and his teaching interests are the medieval and early modern European history and research methodology. His own research focuses on church and state relations in the early Reformation and has taken him to archives in England, Germany, and Switzerland. He takes students to London each summer to participate in the Dutch Church Book Provenance Project, a joint research endeavor with the Dutch Church London, the oldest Dutch speaking Protestant church in the world, and Lambeth Palace Library, England's first public library.



Susan E. Walden (ASEE Fellow) is the founding director of the Office of Undergraduate Research in the office of the VPR-Norman Campus of the University of Oklahoma. Leading efforts to institutionalize undergraduate research, she supports faculty and students in course-based and individually-mentored research. She is entering her second term as a councilor on the National Council on Undergraduate Research and leads the OU involvement in the Oklahoma Louis Stokes Alliance for Minority Participation program. She also is the founding director of the Research Institute for STEM Education (RISE) and an associate research professor in the dean's office of the Gallogly College of Engineering (CoE). Her RISE research work examines the systemic cultural and structural barriers to broadening participation in STEM majors. She serves on the committee on diversity for the American Society for Engineering Education. Walden has supported and engaged in P-12 STEM education for 25 years.



Anton Wohlers was named dean of Behavioral and Social Science at Harford Community College, Bel Air, Maryland, in August 2017. His academic work and publishing has focused on aspects of public policy, including e-government, biotechnology's role in society, and economic development policy. He holds a doctorate in political science from Northern Illinois University (2004), where he studied the role of neighborhood groups in local agenda-setting. While academic research director at Cameron University in Oklahoma, he has encouraged undergraduate research by organizing Oklahoma Research Day and other events aimed at involving students in research..

