April 5, 2017
Bryant Conference Center
The University of Alabama
The University of Alabama
Faculty Research Day
President’s Faculty Research Award Ceremony

Networking.................................................................4:00

Opening Remarks.........................................................4:30
Dr. Carl A. Pinkert
Vice President for Research and Economic Development

Welcome
Dr. Stuart R. Bell
President

Keynote Address
Dr. Kim Bissell
Professor and Associate Dean, College of Communication and Information Sciences
Director, Institute for Communication & Information Research
Director, Undergraduate Research

President’s Faculty Research Award Presentations
Dr. Samit Roy
William D. Jordan Professor, Aerospace Engineering and Mechanics
Chair, Research Advisory Committee (RAC)

Concluding Remarks
Dr. Carl A. Pinkert
Vice President for Research and Economic Development

Reception.................................................................5:45
Kim Bissell is a professor in the College of Communication and Information Sciences, serving as the College’s Associate Dean for Research and the Director of the Institute for Communication & Information Research. She also serves as the University’s Director of Undergraduate Research and is the co-director of the Health Communication Lab in the College. Her research interests lie in the intersection of media, health, and children, and she has published more than 65 academic journal articles in her time at UA.

She helped develop the Child Media Lab and the Psychophysiology Lab in the College’s research center and has recently conducted several studies examining the effectiveness of video game devices in helping children at-risk for obesity become more physically active. She has developed several media and health literacy programs for area schools to help children learn how to become more proactive in their health and well-being. She developed an iPad app, which measures children’s food consumption and eating behavior, and has published several articles related to data collected from that app as part of a longitudinal study. She also serves on the editorial board of several journals within the discipline. She teaches graduate courses in research methods, mass communication theory, media effects, children and cognition, and health communication, as well as undergraduate courses in magazine design and international journalism. She was awarded UA’s Blackmon Moody Award in 2015 and was also named The University of Alabama’s SEC Professor of the Year.

She is the faculty adviser of Alpine Living Magazine, an award-winning, student-produced travel magazine that is a part of the international journalism course she developed. She is a group exercise instructor at the Student Recreation Center at UA and has served as a personal trainer for overweight children. She developed several running programs for children throughout the community and has run more than 29 marathons and ultra marathons.
Jason Bara is an associate professor in the department of Chemical and Biological Engineering. Dr. Bara received a B.S. in Chemical Engineering from Virginia Commonwealth University and a Ph.D. in Chemical Engineering from The University of Colorado at Boulder. He has authored 70 peer-reviewed research publications and 4 book chapters primarily on the topics of CO2 capture, ionic liquids, polymer membranes, nanostructured materials, and chemical process engineering. Jason is the 2015 winner of the FRI/John G. Kunesh Award from the AIChE Separations Division. His research has been funded by NSF, DOE, NASA, ACS-PRF and industry. In addition to his active research group, Jason has also led educational programs focused on 3-D printing and the development of mobile apps for chemical engineers, including Chemical Engineering AppSuite and ODEsseus: Numerical Solver for Differential Equations on iPhones and iPads.

J. Brian Jordon, Ph.D., (Mississippi State University) is an associate professor in the Department of Mechanical Engineering. Dr. Jordon's research focuses on the interaction of microstructure and mechanical behavior in order to model materials and structures for superior performance. His interests include fatigue and fracture, process-structure-property relationships, constitutive modeling of plasticity and damage, simulation modeling of welding and joining, and solid-state additive manufacturing. Dr. Jordon has published over 60 refereed journal articles and conference proceedings in these and related areas. His research has been supported by the Department of Energy, the Department of Defense, the State of Alabama, and private industry.

Professionally, Dr. Jordon has organized symposiums at the annual American Society of Mechanical Engineers (ASME) International Mechanical Engineering Congress & Exposition (IMECE) from 2013-2017 on the topic of fatigue and fracture of materials and structures. In addition, he serves on several technical committees at The Minerals, Metals, & Materials Society (TMS) and is the chair for the IMECE Constitutive Equations committee. In 2014, Dr. Jordon was a recipient of the TMS Young Professional Development award. For his service, he has been recognized as a top journal reviewer for Metallurgical and Materials Transactions A (2011) and Materials and Manufacturing Processes (2014 and 2015). He currently serves on the editorial board of Materials and Manufacturing Processes journal.

Prior to coming to The University of Alabama, he was an Interim Associate Director and an Assistant Research Professor at the Center for Advanced Vehicular Systems at Mississippi State University.
**Gregory Starr,** Ph.D. (Florida International University) is an associate professor of global change ecology in the Department of Biological Sciences. Dr. Starr’s research focuses on understanding the role that humans play in shaping ecosystems across the globe and how this alters their biogeochemical processes. He is particularly interested in how ecosystems sequester or release greenhouse gases that contribute to climate change. Dr. Starr has published over 50 peer-reviewed scientific articles in journals such as, Global Change Biology, Ecology, Ecological Applications, and Agriculture and Forest Meteorology.

Starr currently has one research project focusing on understanding the role of climate and fire on the biogeochemical cycles of longleaf pine forest in the Southern United States. He also has a project studying human influences and hydrological changes that contribute to the physiology activity of ecosystems in Everglades National Park and a biofuels projects looking at “trading carbon for water” in loblolly pine plantations of the Southeast US. Starr also recently was awarded a Fulbright Fellowship entitled, “Food security and human population growth: Trading water for carbon to increase food production for the 21st century.”

Starr teaches a variety of undergraduate courses in plant sciences including Plant Biology and Plant Ecology. He is also dedicated to the education of graduate students through his research and teaching efforts. He teaches graduate courses such as Global Change Biology, History of Ecosystems Ecology, and Scientific Writing and Data Presentation.
Paul Allison is an assistant professor in the Department of Mechanical Engineering. He is involved in characterizing the structure-property-processing relations of a variety of material systems to support basic and applied research projects. His research examines many different material systems, including ferrous and non-ferrous alloys, ceramics, cementitious materials, biomaterials, and bio-inspired nanocomposites across multiple-length scales at quasi-static and dynamic loading rates.

Dr. Allison’s research supports Army, Air Force, Navy, Department of Homeland Security, and Federal Highway Administration projects. While working for the Army, Dr. Allison received the 2013 Department of the Army Research & Development Award for Technical Excellence, the US Army ERDC - Research and Development Achievement Award for 2013 and 2014 and the Department of the Army Achievement Medal for Civilian Service for 2011.

Dr. Allison serves as adjunct faculty at Mississippi State University and the University of Puerto Rico at Mayaguez where he is advising or co-advising graduate students in the mechanical engineering departments on projects related to novel materials, bio-inspired materials, advanced lightweight metals, and high-strain rate phenomenon of metals and biomaterials.

Professionally, Dr. Allison has organized conferences by serving on the technical program committee for NanoTechnology for Defense (NT4D) and on the biomaterials and biological materials committee for The Minerals, Metals, & Materials Society (TMS). Additionally, Dr. Allison is the current faculty advisor for the University of Alabama chapter of Tau Beta Pi. Prior to joining The University of Alabama in 2014, Dr. Allison performed research at Sandia National Laboratories, NASA-Marshall Space Flight Center, and the University of Carlos III de Madrid (Spain) while completing his Ph.D. at Mississippi State University. Dr. Allison received his B.S. and Ph.D. degrees in Mechanical Engineering from Mississippi State University in 2005 and 2009, respectively.

Dr. Allison has over 40 peer reviewed scientific articles published, accepted or in revision, has given invited presentations at international conferences on engineering mechanics and material science, and is co-author of over twenty other technical publications.
Kim Genareau is an assistant professor in the Department of Geological Sciences. Her research is in the field of volcanology, with a focus on the hazards that volcanic ash poses to water quality and electrical infrastructure. She recently received a CAREER award from the National Science Foundation for her research on volcanic lightning, which aims to determine the chemical and structural response of volcanic ash to lightning discharge in order to track lightning occurrence in the geologic record. Genareau’s research combines different analytical and experimental tools to analyze volcanic deposits, assess eruption dynamics, and evaluate eruptive hazards. Her research has been published in numerous scientific journals including Bulletin of Volcanology, American Mineralogist, Geophysical Research Letters, and Geology. She is also actively involved in the recruitment of women to STEM fields and the development of teaching curricula to inform public school students about natural hazards.

Genareau teaches undergraduate courses in Igneous and Metamorphic Petrology and combined graduate/undergraduate courses in Volcanology and Scanning Electron Microscopy. She is also one of three professors that instructs the summer Field Course in New Mexico for undergraduate geology majors.

Dr. Genareau has a B.S. in Physics, a B.S. in Geology, and a B.A. in Philosophy (2003) from the University of South Florida. She graduated from Arizona State University in 2009 with a Ph.D. in Geological Sciences.

Andrew N. Lemmon is an assistant professor of Electrical and Computer Engineering. Dr. Lemmon has more than 10 years of experience as a practicing engineer in industry and has obtained professional engineering licensure in Tennessee, Alabama, and Mississippi.

A native of Memphis, TN, Lemmon graduated from Christian Brothers University in 2000 with a BS in Electrical Engineering. After several years working in industry, he returned to graduate school part time to pursue the MS in electrical engineering at The University of Memphis, which he completed in 2009. His PhD was completed in 2013 at Mississippi State University, where he held a graduate fellowship in the Center for Advanced Vehicular Systems (CAVS).

Dr. Lemmon's primary research interests are in the area of power electronics. His efforts are applied to optimizing the design of power conversion systems based on next-generation semiconductors made from Silicon carbide (SiC). The goal of this research is to improve the efficiency and reliability of these systems while simultaneously effecting a transformational reduction in their size, weight, and cost. This research is expected to have significant long-term impact on applications such as electric vehicles; alternative energy generation systems, including wind and solar; and defense applications onboard US Navy ships.

With funding from the Office of Naval Research and several industry partners, Dr. Lemmon's team has made several important contributions to the field of SiC-based power electronics. These findings have been published in premier journals such as IEEE Transactions on Power Electronics and IEEE Journal of Emerging and Special Topics in Power Electronics.
Andrew Billings is the Director of the Alabama Program in Sports Communication and Ronald Reagan Chair of Broadcasting in the Department of Journalism and Creative Media. His research interests lie in the intersection of sport, mass media, consumption habits, and identity-laden content. With fourteen books and over 140 journal articles and book chapters, he is one of the most published sports media scholars in the world. His books include Olympic Media: Inside the Biggest Show on Television (Routledge, 2008) and The Fantasy Sport Industry: Games within Games (Routledge, 2014) and his journal outlets include the Journal of Communication, Journalism & Mass Communication Quarterly, Mass Communication & Society, and the Journal of Broadcasting & Electronic Media. His writings have been translated into five languages. He also serves on many editorial boards, including as an Associate Editor of the journal Communication & Sport.

Billings’ work has won numerous awards from organizations such as the National Communication Association, the Broadcast Education Association, and the Association for Education in Mass Communication and Journalism. He is the current chair of the Communication & Sport Division of the National Communication Association, a former Research Symposium Chair for the Broadcaster Education Association, and the former chair of the Sport Communication Interest Group of the International Communication Association. He has lectured in nations around the world, from Spain to China to Austria. His work in the classroom has also earned him many teaching awards. He has been interviewed over 500 times by media outlets ranging from The New York Times to The Los Angeles Times to ESPN. Billings has also consulted with many sports media agencies and is a past holder of the Invited Chair of Olympism at the Autonomous University of Barcelona.

Aaron M. Kuntz is associate professor and Department Head of Educational Studies where he teaches graduate courses in qualitative inquiry and foundations of education. Dr. Kuntz’s research focuses on developing “materialist methodologies” – ways of producing knowledge that take seriously the theoretical deliberations of critical theory, new materialism, and poststructuralism that have emerged in social theory over the past fifty years. He grounds this methodological theorizing in empirical questions about the production of inquiry in the K-16 arena, faculty work and activism in postsecondary institutions, and the impact of the built environment on learning.

Adam P. Knowlden is an assistant professor of health science in the Department of Health Science. He specializes in the development of behavioral prediction models and the evaluation of experimental interventions. Dr. Knowlden’s research focuses on the role of sleep in preventing cardiometabolic syndrome in men. In his capacity as a researcher, he has published over 50 peer-reviewed articles in leading, national and international journals such as Health Education & Behavior, Journal of Primary Prevention, and Obesity Reviews. He has presented over 90 presentations at juried international, national, and local conferences. Dr. Knowlden has received multiple grants to support his research endeavors, including two competitive doctoral fellowships to develop and evaluate an obesity prevention program for children.

In addition to his own research, Dr. Knowlden is enthusiastic about helping other researchers achieve their professional goals. In this regard, he has served on multiple dissertation and thesis committees. Dr. Knowlden is passionate about advancing the state of health behavior research and recently accepted a position as associate editor for the peer-reviewed journal, Health Education & Behavior. He is a member of the American Academy of Health Behavior, American Public Health Association, and Society for Public Health Education. Dr. Knowlden teaches courses in program evaluation at the master's and doctoral level as well as undergraduate courses in environmental health. He earned his MS and PhD degrees from the University of Cincinnati and earned an MBA from Franklin University while employed as a Legislative Analyst for the Columbus (Ohio) City Council.

Jingping Sun is an assistant professor in the Department of Educational Leadership, Policy and Technology Studies. She obtained her PhD at the Ontario Institute for Studies in Education, University of Toronto. Her research is about research synthesis, leadership model development, and policy evaluation. Sun has conducted the most comprehensive meta-analysis on transformation school leadership to date. Parts of her findings were published in Educational Administration Quarterly. She has conducted independently, or collaborated in, about 30 cutting-edge research projects so far. One of them was a five-year longitudinal Wallace Foundation-funded project. She contributed to a recently published book on data informed decision-making with a group of internationally distinguished scholars. The school leaders’ ethical decision-making framework won her the first prize of the Emerging Scholar Manuscript Competition from the International Journal of Leadership in Education (IJLE). Prior to joining The University of Alabama, Dr. Sun worked in the Ontario Ministry of Education (MOE). Her policy experience at the provincial level was mainly about large-scale development of school and district leaders. Her experience there included evaluating the Ontario Leadership Strategy and its 13 initiatives. More recently, Dr. Sun, with UA professor Brenda Mendiola, completed a research project, developing school turnaround specialists, in collaboration with two other universities in Alabama and the Alabama Department of Education, funded by the U.S. Department of Education. She is also co-editor, with Kenneth Leithwood, of a special issue on How School Leaders Influences Student Learning for Societies (2016) and co-editor with him and Katina Pollock on the Four Paths through which school leaders improve student learning, the 22nd volume of the book series on Studies in Educational Leadership (2017). She teaches courses in Leadership for Teaching and Learning, Data-Informed Decision-Making, Mentoring Adult Learning, Schools and Social Systems, and Dynamic Changes.
Lesley Jo Weaver, Ph.D., M.P.H. (Emory University) is an assistant professor of medical anthropology and an affiliate professor of South Asian Studies and Latin American and Caribbean Languages and Cultures. Weaver’s National Science Foundation-supported research focuses broadly on intersections between gender identity, health disparities, and mental health in rural Brazil and urban India. Her work in these areas has appeared in the American Journal of Public Health; Medical Anthropology; Medical Anthropology Quarterly; Social Science and Medicine; Culture, Medicine and Psychiatry; Field Methods; Global Health Action; the Annals of Anthropological Practice; Ethos; Ecology of Food and Nutrition; and Indian Journal of Medical Research, and in several book chapters and encyclopedia entries.

Weaver’s most current research project, which takes her to Brazil during every summer recess, asks how people in an economically precarious rural community grapple with persistent food insecurity even as the social meanings of food are changing around them. She is also currently working on a book based on her doctoral research, which involved several years of study among women in North India with type 2 diabetes. Key themes of the book are how women’s health choices reflect and respond to rapid economic and social changes that have taken place in North India in the last 30 years, as well as how women come to grips with complex and life-altering chronic diseases. She speaks Hindi and Portuguese and she uses these languages to understand first-hand how people narrate their experiences with illness, social meaning, and suffering.

Weaver teaches undergraduate, Master’s, and doctoral courses in Introductory Cultural Anthropology, Mental Health in Cross-Cultural Perspective, Theory and Method in Biocultural Anthropology, Gender and Modernity in South Asia, Gender Ethnicity and Health, and Race and Human Variation.
Lesley Jo Weaver, Ph.D., M.P.H. (Emory University) is an assistant professor of medical anthropology and an affiliate professor of South Asian Studies and Latin American and Caribbean Languages and Cultures. Weaver's National Science Foundation-supported research focuses broadly on intersections between gender identity, health disparities, and mental health in rural Brazil and urban India. Her work in these areas has appeared in the American Journal of Public Health; Medical Anthropology; Medical Anthropology Quarterly; Social Science and Medicine; Culture, Medicine and Psychiatry; Field Methods; Global Health Action; the Annals of Anthropological Practice; Ethos; Ecology of Food and Nutrition; and Indian Journal of Medical Research, and in several book chapters and encyclopedia entries.

Weaver's most current research project, which takes her to Brazil during every summer recess, asks how people in an economically precarious rural community grapple with persistent food insecurity even as the social meanings of food are changing around them. She is also currently working on a book based on her doctoral research, which involved several years of study among women in North India with type 2 diabetes. Key themes of the book are how women's health choices reflect and respond to rapid economic and social changes that have taken place in North India in the last 30 years, as well as how women come to grips with complex and life-altering chronic diseases. She speaks Hindi and Portuguese and she uses these languages to understand first-hand how people narrate their experiences with illness, social meaning, and suffering.

Weaver teaches undergraduate, Master's, and doctoral courses in Introductory Cultural Anthropology, Mental Health in Cross-Cultural Perspective, Theory and Method in Biocultural Anthropology, Gender and Modernity in South Asia, Gender Ethnicity and Health, and Race and Human Variation.

Paul Horwitz is the Gordon Rosen Professor of Law at the School of Law, where he has taught since 2007. Professor Horwitz teaches law and religion, constitutional law, legislation and regulation, legal ethics, and introduction to the study of law. A leading figure in First Amendment scholarship, Professor Horwitz is the author of two books, The Agnostic Age: Law, Religion, and the Constitution (Oxford University Press), and First Amendment Institutions (Harvard University Press). He is currently under contract with Harvard University Press for a book in progress tentatively titled Unspoken: Social Class and the American Legal Academy, and is working on a book-length project on oaths, honor, and the Constitution. He has also written dozens of articles, essays, and reviews for publications such as the Harvard Law Review, the University of Chicago Law Review, the Virginia Law Review, the Michigan Law Review, the UCLA Law Review, and many others.

Professor Horwitz has been a visiting professor at Harvard Law School, Notre Dame, the University of Iowa, and the University of San Diego, and began his tenure-track career at Southwestern Law School in Los Angeles before being recruited by Alabama. He has written for general-readership publications such as the New York Times, is a principal member of the popular legal blog Prawfsblawg, and serves as constitutional law co-editor and a contributing columnist for the blog Jotwell. He is a former law clerk to the Hon. Ed Carnes of the United States Court of Appeals for the Eleventh Circuit. Professor Horwitz received his LL.B. from the University of Toronto, where he was co-editor-in-chief of the University of Toronto Faculty Law Review, and his LL.M. from Columbia Law School. He is a graduate of McGill University and received a master's degree from the Columbia University Graduate School of Journalism. A long-standing member of the Faculty Senate, Professor Horwitz has been active on a number of campus issues during his time at the University.
Michael D. Picone, who earned his doctorate at the University of Paris (la Sorbonne), has taught French and Linguistics at The University of Alabama since 1988, earning the rank of Professor in 1999. He organizes courses and seminars on a wide variety of topics, corresponding to his own range of interests and expertise involving linguistics and semiotics: Romance Linguistics, Francophone Louisiana, French graphic novels and sequential art, Dialect in literature, Francophone Africa, Languages in Contact, Multimodal Discourse, and Historical Sociolinguistics, especially in relation to the Lower Mississippi Valley and Gulf South. Accordingly, his publications and program of research embrace an assortment of semiotic, lexicological, phonological, graphilological and language-contact topics, as well as contemporary and historical profiles of language use in Louisiana, Alabama and elsewhere.

He is author of Anglicisms, Neologisms and Dynamic French (1996), a detailed study of borrowings and other types of lexical creativity in the French of France. He is a co-editor of The Dictionary of Louisiana French (2010); now in its third printing, it was the winner of the Book of the Year award in 2010, given by the Louisiana Endowment for the Humanities. He is co-editor and contributor to New Perspectives on Language Variety in the South: Historical and Contemporary Approaches (2015), bringing together 45 chapters penned by the best veteran and emerging researchers in the field. His articles have often appeared in American Speech, the preeminent journal of North American dialectology. In that venue, he most recently published “Literary Dialect and the Linguistic Reconstruction of Nineteenth-Century Louisiana” (2014). When called upon to participate in the international publication of The Routledge Handbook of the English Writing System, he contributed “Eye Dialect and Pronunciation Respelling in the USA” (2016).

Some of his most recent research combines linguistic and semiotic approaches to elements of modern culture, such as the increase world-wide of bilingual songs as well as comic art in Francophone Europe and Italy. On the latter topic, one of his most innovative and original articles chronicles the growing synergy between comic artists working on collaborative projects with European museums of stature: “Comic Art in Museums and Museums in Comic Art” (appearing in the journal European Comic Art, 2013). As a linguist with one foot in the sciences and the other in the humanities, he has earned grants from both the National Science Foundation and the National Endowment for the Humanities. In recognition of his achievements in research, publication and teaching in relation to the French language and culture, Dr. Picone has been decorated with academic honors by the national French Ministry of Education and given the title of Chevalier de l’Ordre des Palmes Académiques.
**Benjamin Kozuch**, Ph.D. (University of Arizona) is an assistant professor in the Philosophy Department. Much of his research occurs at the intersection of the philosophy and neuroscience of consciousness and has consequences for issues concerning animal and infant awareness and for the quest to find the neural correlates of consciousness. He also conducts research regarding visual illusions and the nature of pain experiences. His work appears in prestigious journals and anthologies such as Philosophical Studies, Mind and Language, Journal of Consciousness Studies, and the Oxford Handbook of the Philosophy of Consciousness. Among the courses he teaches are ones covering cognitive science, the neural basis of consciousness, and the relation between neuroscience and ethics.

**Stephen Rushin** joined the faculty at the School of Law as an Assistant Professor in August of 2015. He specializes in policing, criminal law and procedure, privacy law, and empirical legal studies. His research has appeared or is forthcoming in the Duke Law Journal, the California Law Review, the Cornell Law Review, the Minnesota Law Review, the Boston College Law Review, and the Fordham Law Review. He is also author of the new book, “Federal Intervention in American Police Departments,” forthcoming with the Cambridge University Press in March of 2017.

Various national television, newspaper, and radio outlets have featured his research or expertise, including the Wall Street Journal, the Los Angeles Times, the New York Times, the Washington Post, the Chicago Tribune, the Philadelphia Inquirer, the Boston Globe, the Atlantic, PBS Frontline, and NPR (including Morning Edition, Marketplace, and regional affiliates in Chicago, Los Angeles, San Francisco, and Georgia). Professor Rushin has received numerous teaching awards. As a Visiting Assistant Professor, the University of Illinois recognized him as a “Teacher Ranked as Excellent.” As a graduate student instructor at Berkeley, he received the Outstanding Graduate Student Instructor Award. Professor Rushin holds a Ph.D. and J.D. from Berkeley, where he was a member of the California Law Review. He also holds a B.A. from the University of Texas.

**Rebecca Salzer**, assistant professor of Dance, is a collaborative and multi-disciplinary artist. Her recent work for the stage has been seen at Links Hall Chicago, Highways Performance Space and Gallery in Los Angeles, and The La Jolla Playhouse. Her award-winning films and videos have been featured in the San Francisco International Film Festival, Cinequest, The International Festival of Screendance, and on PBS-TV affiliates KQED, KPBS, and WTTW. Rebecca Salzer Dance Theatre produced live work and films in San Francisco from 1992-2006 where it received support from the California Arts Council, the Berkeley Arts Council and private and corporate donors. Rebecca is a Jacob K. Javits Fellow. She holds a B.A. in Humanities from Yale University and an M.F.A. in Dance Theatre from the University of California, San Diego. She joined the University of Alabama faculty in 2014.