

East Stroudsburg University of Pennsylvania

Second Annual

# Student Research, Scholarly & Entrepreneurial Activity Symposium

2014



Guest Speaker

**Dr. Randal Pinkett**

Season 4 Winner of

“The Apprentice” with Donald Trump

*The Impact of Student Research on  
Successful Future Careers*

Niedbala Auditorium, 3 p.m.

**Thursday, April 3, 2014**

**9:30 a.m. - 4 p.m.**

**Warren E. '55 & Sandra Hoeffner Science  
and Technology Center**

A MEMBER OF THE  
PENNSYLVANIA STATE SYSTEM  
OF HIGHER EDUCATION



**W**elcome to the second of what we hope will become an annual tradition – a showcase and celebration of some of ESU’s **Best – Best** in student research, **Best** in student scholarly activities, and **Best** in innovation and entrepreneurship.

The Symposium Planning Committee is pleased by the growth we’ve since the first time we tried this – during the inauguration of ESU’s first woman president – Dr. Marcia G. Welsh.

Last year there were 52 submissions – some of them from individual students and some from pairs, triads or groups. This year there are 72!

And what about next year? If you didn’t take an active role this year, we encourage you to consider submitting a project for next year. All graduate and undergraduate students will be eligible to submit research or scholarly activity conducted or completed between January 1, 2014 and March 2015. Projects prepared by more than one student qualify (and are encouraged). Standard quantitative and qualitative research qualifies. Scholarly activity from the arts and from innovative and entrepreneurial work all qualify.

So take a look at what your friends and classmates have done.

Get inspired.

Show us your stuff!

**Patricia M. Kennedy, J.D., Ph.D.**

Associate Professor - Communication Studies Department

& Chair, Planning Committee for ESU's 2014 Symposium for Student Research, Scholarly & Entrepreneurial Activities

And my special thanks to the planning committee members – a terrific team!

**Doreen Tobin, D.Ed.,** Vice President for Student Affairs

**Bonnie Green, Ph.D,** Professor of Psychology and Acting Associate Dean of the College of Arts & Sciences

**Patricia Kashner,** Assistant to the Vice President for Student Affairs

**Gerard Rozea, Ph.D. – ATC,** Associate Professor of Athletic Training

**Sarah Goodrich,** Coordinator of Conference Services

**Kevin Quintero,** Graduate Admissions Coordinator

**Terry Barry, D.Ed.,** Associate Dean, College of Education

**Yoshi Tanokura,** Assistant Professor of Theatre

**Jaedeock Lee, Ph.D.,** Assistant Professor of Sport Management

**Sharone Glasco,** Director of Workforce Development, Research and Economic Development

**Mary Frances Postupack,** Vice President for Economic Development and Research Support

**Kristen Bengel,** Undergraduate Student

**Luis Thomas,** Graduate Student in Public Administration & Assistant for the Symposium

# Poster & Display Session 1 (9:30 a.m. - 11:00 a.m.)

Welcome by Thomas Tauer, Ph.D.

Associate Provost and Dean of University College

<u>Presenter(s)</u>	<u>Sponsoring Department</u>	<u>Sponsoring Faculty</u>	<u>Site</u>
Lauren E. Stuber	Health Education & AToD Prevention	Alyson Patascher	1

## Using Social Norm Theory in Peer Education Programs to Foster Risk Reduction

*The Health Education and AToD Prevention program has been conducting research using social norm theory to assess perceptions and differentiate between perceived and actual norms. Recent studies indicate that social norm evaluations can be effective for gauging and addressing alcohol consumption and substance use in college communities. This study used a survey to assess the frequency of students' high-risk behaviors—such as alcohol and substance use and driving under the influence. Research shows that students engage in high-risk behaviors less frequently than apprehended. This presentation uses qualitative and quantitative data to contextualize implications for community health on East Stroudsburg University's campus.*

Ellen Polyniak	Athletic Training	Keith Vanic, Gerard Rozea	2
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## An Analysis of the Knowledge, Educational Practices and Competency of Athletic Trainers with Airway Adjuncts.

*The purpose of this study was to investigate newly certified athletic trainers knowledge of different airway adjuncts. Also, the aim of this study was to examine the amount of educational time and techniques used, such as orally or through presentation, to address this new competency in their Athletic Training Program. Finally, the athletic trainer's competency was assessed with their ability to insert an airway adjunct into a manikin/simulator.*

Scott O'Donnell, Nikki January	Biological Sciences	Jane Huffman, Thomas Rounsville, Jr.	3
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## Population Genetics of Wood Turtles (*Glyptemys insculpta*) in The Delaware Water Gap National Recreation Area, U.S.A.

*A current construction project in the Delaware Water Gap National Recreation Area (DWGNRA) required an updated study of wood turtles which are listed as an endangered species. Blood samples were collected from nine turtles from the subcarapacial sinus. Ten microsatellite markers were used to investigate the genetic variation and population structure of the turtles. The results from our study were compared to a genetic study of wood turtles conducted in the park in 2004. Of the three new loci used, two showed allelic diversity. Unique alleles were found with primers B21 and D114. This may indicate that there is high allelic diversity at these loci.*

Elizabeth McGovern, Christopher Hauer	Biological Sciences	Howard Whidden	4
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## Assessment of Potential Migration Corridors for Eastern North American Tree Bats

*Recent expansion of wind energy has had the unexpected consequence of high bat mortality. Three species (hoary, eastern red, and silver-haired bats) comprise the majority of fatalities, with most fatalities occurring during fall migration. One hypothesis for this mortality is that bats use ridgetops where wind turbines are placed as migratory corridors. We used an AR125 detector to monitor bat activity along the Delaware River and adjacent ridgetops. We found elevated activity along the ridge for eastern red and silver-haired bats and along the river for hoary and silver-haired bats, suggesting that different species migrate along different landscape features.*

Tomasz Perlinski, Jason Struble	Biological Sciences	Maria Kitchens-Kintz	5
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## Effects of Caffeine and EGCG on Human Colon Cancer Cells

*In previous studies, commercial green tea has been shown to be a growth stimulant to colon cancer cell lines at low concentrations. Many commercial green teas contain caffeine. Caffeine has been shown to be a growth stimulant of human cell lines. In this study, the LD50 will be determined for Sencha green tea, and a parallel study will be performed using caffeine concentrations at levels believed to be contained in the green tea. The effects on the cells growth will be studied by performing cytotoxicity assays. These experiments will increase understanding of green tea as an effective cancer therapeutic agent.*

## Poster & Display Session 1 (9:30 a.m. - 11:00 a.m.)

Presenter(s)	Sponsoring Department	Sponsoring Faculty	Site
Rachel Parise, Christopher Stangl	Chemistry	Richard Kelly	6
<b>Analysis of 1-Methylcyclopropene and Its Effect on Banana Volatile Profiles</b>			
<i>1-Methylcyclopropene (1-MCP) is an inhibitor of the plant hormone ethylene and has commercial applications in cut flowers and stored fruits and vegetables. Under ambient conditions, 1-MCP exists as a gas and functions by tightly binding to ethylene receptors and preventing normal regulatory processes such as ripening. In this study, the production of banana volatiles were monitored over time with treated and untreated fruit. Results show that exposure to 1-MCP markedly reduced the evolution of selected volatiles in bananas.</i>			
Amber Wyckoff	Communication Studies	Andrea McClanahan	7
<b>Social Convergence Theory: Positive and Negative Effects of Fantasy Worlds</b>			
<i>Thanks to the ever-changing modes of communication in our modern culture, people are regularly finding new and exciting ways to share and relate with one another during interactions. One noted method of bonding comes from the formation of social realities, rhetorical visions, and fantasy themes--scenarios people create to encourage positive feelings of acceptance and understanding from group members. But can indulging too far into the fantasy world also create a negative outcome to those who participate? Using Ernest Bormann's Social Convergence Theory (SCT) as a guideline, this paper examines both the positive and negative effects of social realities and their subcategories on human interaction. In addition, this paper highlights the importance of new media outlets, such as the website, Instagram, and how its pro-disordered eating media has continued to strengthen the bridge that SCT creates between fantasy and reality.</i>			
Diana Dreher, Nikole Threats, Dominique Crivellaro, Alena Lisa, Matthew Zullo, Joseph La Tassa, Joshua Palmer	Communication Studies	Cem Zeytinoglu	8
<b>A Firsthand Field Study of Red Robin</b>			
<i>The project that inspired this submission is a field study of the restaurant Red Robin aimed at identifying how the concepts studied in Organizational Communication apply to an actual workplace. The study was completed in May 2013 when after conducting research and utilizing an interview methodology, the authors analyzed how company protocols and routine multi-level interactions demonstrated concepts such as conflict resolution, organizational values, management styles, and advertising strategies, amongst others. The findings were then compiled and incorporated into a report that also included the history of Red Robin and ideas for improvements.</i>			
Edward Bevan, Evelyn Barone, Tyler Creighton, Melecia Morant, Ashlyn Jacoby, Katie Morris, Christy Flynn, Sam T., Alyssa Garcia, Mel Rivera, Irel Zepeda, Rachel Parise, Chelsea Oplinger, Lauren Carhart, Angel Rodriguez, Nick Bourne, Chris Davis, Mckenziey Andrew	Art	Darlene Farris-LaBar	10 - 21
<b>Spreading Sustainability: Public Art Across the Campus</b>			
<i>This multi-aspect project by students in Professor LaBar's sculpture course includes not only the 3D installations that are placed in various locations on campus, but also posters displayed in SciTech that describe the creative thinking behind each piece and a map showing the locations of these works of ephemeral public art. The common theme is the desire to provoke passersby into paying attention to the impact of humans on the natural world around them. They range from a chandelier that combines fresh cut flowers, test tubes, water and energy in the form of the light to a five foot tall origami crane with "progeny" in nests all over campus.</i>			

## Poster & Display Session 1 (9:30 a.m. - 11:00 a.m.)

<u>Presenter(s)</u>	<u>Sponsoring Department</u>	<u>Sponsoring Faculty</u>	<u>Site</u>
James Philip Carson	Communication Studies	Charles Warner	<b>22</b>

### **Espionage, Hybrid TV, and Agents of S.H.I.E.L.D.: A Genre Analysis**

*Using 'Marvel's Agents of S.H.I.E.L.D.', a hybrid genre television program, as the principal text for genre analysis the author examines the many facets that have shaped the Espionage television genre. Through the examination of formulaic elements, conventional and inventional elements, and various cultural changes over the years the author finds how the Espionage genre evolved and maintained relevance with the audience.*

Joseph LaTassa	Communication Studies	Cem Zeytinoglu	<b>23</b>
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### **A Jungian Analysis of David Fincher's "Se7en"**

*This poster presentation illustrates the final paper assignment written for Dr. Cem Zeytinoglu's Psychology of Speech class. In reading Carl Jung's "Man and His Symbols", the author discusses the meanings of various visual symbols experienced in the psyche. Among these is the hero myth, in which an individual develops an ego-consciousness over the course of life and becomes aware of personal strengths and weaknesses. Using this concept, I analyzed two main characters of David Fincher's movie "Se7en" and attempt to follow the plot from a Jungian perspective.*

Kaitlyn Guttorsmen	Communication Studies	Robert McKenzie	<b>24</b>
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### **Comparing Cultures: Films from the U.S. and the U.K.**

*The purpose of this project was to compare media from two countries with the intention of studying the similarities and differences of the two cultures. This project focused on a film from the U.S. called "Fight Club" and a film from the U.K. called "Green Street Hooligans." I created an overall social theme found in both films to be the basis of my comparison. The social theme that I chose was emergence in times of turmoil. I came up with three variables to study more closely. The variables I used to aid my comparison were: the development of friendship, self-discovery, and risk taking.*

Janivel Infante	Communication Studies	Patricia Kennedy	<b>25</b>
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### **Where in the Watershed? Studying Channels for Non-profit Advertising.**

*This project is an ongoing investigation on the channels for non-profit advertising. The study is focused on The Brodhead Watershed Association, a non-profit environmental organization dedicated to protecting and improving water resources and the environment in the Brodhead and Cherry creek watershed. Post event evaluation forms were created and used in Community Events in order to identify the channels for non-profit advertising for The Brodhead Watershed Association/Pocono Heritage Land Trust; as well as to learn of ways to attract new membership, gain higher event attendance rate and lastly study event attendee reactions.*

Sarah Porterfield, Kenric Carter, Erika Dominguez, Konrad Mims, Erika Erdmann, Bailey Harman, Breanne Scharpnick	Communication Studies	Cem Zeytinoglu	<b>26</b>
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### **Matching or Mismatching Values: An Analysis of ARAMARK**

*The purpose of the research was to discover the stated values of ARAMARK and determine whether the actual values matched or mismatched them. ARAMARK is a worldwide organization that specializes in food, catering, and uniforms among other things. The focus was specifically on the organizational culture created by values and assumptions with the Edgar Schein model as a theoretical guide. The methodology included a content analysis, an interview, and observations of the work environment. Overall, the assumptions seemed to match the espoused values which contributed to strong cultural unity, recent awards, and a growing reputation.*

Zachary Zanetti	Communication Studies	Paul Lippert	<b>27</b>
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### **Free Trait Theory: Bridging the gap between Dr. Brian Little and Erving Goffman**

*Throughout the 20th century, social psychology has altered our perception of how our thoughts and behaviors are influenced by society. Two opposing viewpoints of why we behave in certain circumstances are debated by sociologist Erving Goffman's traditional viewpoint involving dramaturgical analysis, and Psychologist Dr. Brian Little's theory of the individual importance. Comparing the similarities and differences between their works of study reveals two distinct approaches to understanding the reasoning of various components of social influence.*

## Poster & Display Session 1 (9:30 a.m. - 11:00 a.m.)

Presenter(s)	Sponsoring Department	Sponsoring Faculty	Site
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Brittany L. Clark	Digital Media Technologies	Carol Walker	<b>28</b>
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### The Effectiveness of Interactive Training vs. Traditional Training on College Peer Mentors

*Researchers have concluded that people prefer training that incorporates multimedia over traditional paper, based methods because it is a good learning environment and it is convenient but expressed that it is unlikely to replace traditional training (Contero & Martin-Dorta, Saorin, 2011; Chiang, Huang & Liu 2007). An anonymous cross-sectional survey will be used to evaluate the participant's satisfaction with the interactive training. It is predicted that the participants will prefer the interactive method over traditional. Discovering if this is true could potentially improve current training and ultimately the performance of the mentors.*

Colin E. Passman, Julian T. Costa	Digital Media Technologies	Yi-hui Huang	<b>29</b>
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### An Analysis and Comparison of Mobile Video Production Application

*A variety of productivity applications are being made available to iPad and iPhone users that allow them to produce and edit video. Multiple types of applications exist, including timeline-based editors, as well as automatic editors, known as "video mashup tools." This research, which reflects on the work of Jokela (2007) and Schleser (2012), includes a thorough analysis and comparison of two mobile video editing programs, HighlightCam and CuteCut, as well as a demonstration of the applications, and techniques for their implementation for education and personal use.*

Karleigh Bowen	Digital Media Technologies	Carol Walker	<b>30</b>
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### Cyberbullying: The Psychological Effects on College Undergraduates

*This research addresses how young adults use technologies of the 21st century and will help to educate the community. My SurveyGizmo link, to be completed anonymously, and letter of consent will be distributed through e-mail to ESU faculty to forward to male and female undergraduates. One expected outcome is the college environment will not be immune to cyberbullying and differences will exist in levels of cyberbullying between genders.*

Joseph Dougherty, Michael Lloret, Christopher Robinson, Asia Burnett, Yuzhe Huang, Destiny Washington, Dontel Ducksworth, Qinhui "Demi" Ma, Mary Dennis, Jannel Armstrong, Jamil Joseph, Taylor Torres, Rebecca Regina	Theatre	Stephanie Daventry French	<b>31</b>
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### Walking a Mile in Shakespeare's Shoes

*Through text analysis and research we breakdown Shakespeare plays. Then, through active analysis, we bring our discoveries to life in unique interpretations. This will involve both a set display with sample research and analysis and pop up performances throughout the symposium.*

## Planetarium Exhibition (11:30 a.m. - 12:30 p.m.)

*Limited admission -- by ticket only -  
Tickets available at the Symposium Registration Desk*

# Poster & Display Session 2 (11:15 a.m. -12:45 p.m.)

Welcome by Dr. Marcia G. Welsh  
ESU President

<u>Presenter(s)</u>	<u>Sponsoring Department</u>	<u>Sponsoring Faculty</u>	<u>Site</u>
Jacqueline Cassidy	Theatre	Yoshi Tanokura	1

## Burlesque Costumes: Evolution of Female Form

*This research is focused on the evolution of the Burlesque costumes from the classic Burlesque of Gypsy Rose Lee to the contemporary fashion in New York City clubs. Burlesque has been reinvented many times to reflect changing times and audiences. The research will examine how burlesque costumes have been adapted to highlight and enhance the female form and how they reflect the changes in society. The supporting materials will include actual burlesque costumes, photographs and articles of the costumes for stage and film that are inspired by burlesque. This research will also highlight how the feminine image and fashion of today as the result of the revolution of burlesque costumes.*

Hunter James Fogel

Theatre

Margaret Ball

2

## Dramaturgy of The Wizard of Oz: America in 1900 Through Emerald Spectacles

*Lyman Frank Baum's The Wonderful Wizard of Oz has remained a cherished story for those who know the novel for its loveable heroes and heroine, frightening villains, fanciful creatures, and vivid locales. Baum's language portrays these fantastical elements as matters of fact, inviting examination. With awareness of an almost forgotten history, Dorothy's odyssey reveals an astute allegory of turn-of-the-century American politics and society. Therefore, literary analysis and theatrical expression provide for students a greater understanding of the past and therefore, the present, as well as opportunities to enrich their roles as actors and scholars by portraying the nation's satirical history.*

Lisa Koskulics

Psychology

Richard Wesp

3

## Does movement improve learning and recall of spatial locations?

*We attempted to clarify how movement associated with learning influences recall. Participants identified left/ right positions of shapes seen on a monitor by moving an object toward the icon's location or with a mouse click (no movement). Recall required either movement or no movement responses. Movement did not significantly improve accuracy of recall but reaction times were longer for those who used movement-associated responses. Findings suggest that in some conditions movement may not improve learning.*

Kyle Strobel

Psychology

Irina Khusid

4

## Shopping Habits Among College Students

*The purpose of this study is to gain insight on the issue of student debt, and to look at the differences among students whom lived on and off campus. The hypothesis was tested administering a questionnaire to students with questions geared toward their personal finance choices, and what sources of those finance choices might be. Results gathered from the questionnaire verified parts of the hypothesis in that there are differences in some of the habits between students living on campus and students living off campus. Further analysis is to be conducted to better determine the cause of the differences observed.*

Joseph M. Fresco,  
Joseph La Tassa

Psychology

Jyh-Hann Chang

5

## Subjective Happiness and Self-compassion Correlated with the COOL Scale

*Compassion of Other's Lives (COOL) Scale developed by Dr. Jyh-hann Chang was correlated with the Subjective Happiness Scale developed by Dr. Sonja Lyubomirsky and Self-compassion scale developed by Kristen Neff. The COOL scale had a p value of .016 when correlated with Self-compassion. The Empathy sub scale had an alpha of .262 correlated with Subjective Happiness but the Alleviating Suffering subscale reported an alpha of .019.*

## Poster & Display Session 2 (11:15 a.m. -12:45 p.m.)

<u>Presenters</u>	<u>Sponsoring Department</u>	<u>Sponsoring Faculty</u>	<u>Site</u>
Wenyue Chen, Wei Li	Geography	Shixiong Hu	<b>6</b>
<b>Application of Swat Model and Top Model in Local Pocono Watershed</b>			
<i>This research aims to apply SWAT and TOP Models to local Pocono Watershed, and study the impact of human activities on hydrological processes. First, the introductions of these two models are given. Then, the data are collected and the hydrological processes are simulated under different scenarios with these two models. The simulation results from both models indicate that the human activities will make the high water higher and low water lower, which will endangered the ecosystems in local creeks. It also suggests that the higher flood risk in local creeks will put serious threats to local infrastructure and private properties.</i>			
Tian Cui, Xiaoyang Qin	Geography	Shixiong Hu	<b>7</b>
<b>Study of stream temperature change in local Paradise Watershed</b>			
<i>The temperature of surface water is largely influenced by air temperature and human activities. This study is to analyze the relationship between air and water temperature in local Paradise Watershed, and explore the controlling factors on the water temperature changes. Based on the data collected in past five years, the correlation between air temperature and stream temperature indicate that air temperature is most important factor and human activities also plan an important role. The results show that the violation rate of cold water fishery standard is high all the year round. The action should be taken to solve the problem.</i>			
Victoria Malcervelli	English	Sandra Eckard	<b>8</b>
<b>Process Feedback: A Study of English Composition</b>			
<i>During my internship as a supplemental instructor in Dr. Eckard's English 104 composition class, I questioned how much, how often, and which students actually use their process feedback. I specifically ask questions regarding students' use of process feedback: When, during the writing process do students apply their feedback? What kinds of feedback students use the most? Do students read and apply their feedback? Overall, this paper will question the hypotheses that at the university level, more often than not, students will inefficiently or neglectfully apply their verbal or written process feedback to their final written assignments.</i>			
Xingkong Ma, Cheng Zu, Jeffrey Reitz	Geography Art and Design	Shixiong Hu, Darlene Farris-LaBar	<b>9</b>
<b>Local Topographic Mapping through 3D Printing: A Collaboration between the Geography and the Art Department</b>			
<i>This presentation will describes a collaborative project between the Geography and Art Department with 3D printing topographic mapping. Through the use of GIS mapping, 3D software and additive manufacturing, students will produce a 3D Map that will later be used for education purposes.</i>			
Maggie Dumas	English	Kim McKay	<b>22</b>
<b>Egypt in Flux: A Character Study of Naguib Mahfouz's "Miramar"</b>			
<i>Many authors have written about society in transition, each with their own perspective of the implications of economic and social change. Naguib Mahfouz accepts his role as the voice of a nation and writes of an Egypt which experiences shifting ideology and the implications of each individual societal choice. The author uses an average female citizen, Zobra, to debate various social landscapes in 1960s Alexandria.</i>			
Katelin Delano	English	Jeff Hotz	<b>23</b>
<b>Gerty Farish and Love in Edith Wharton's "The House of Mirth"</b>			
<i>Initially, serious debate occurred concerning Edith Wharton's novel, The House of Mirth. In due time however, literary scholars marked The House of Mirth as a classic because of the provocative social questions Wharton asks her reader about aristocratic America. Protagonist Lily Bart serves as the embodiment of these questions, as she is torn between marrying Lawrence Selden, the man she loves and marrying a wealthy gentleman. Despite Lily's struggle, Wharton uses Gerty Farish, arguable the most honorable woman in the novel, to model to Lily that marrying for wealth is not her only survival option in nineteenth century America.</i>			

## Poster & Display Session 2 (11:15 a.m. -12:45 p.m.)

<u>Presenters</u>	<u>Sponsoring Department</u>	<u>Sponsoring Faculty</u>	<u>Site</u>
Alexa Cospito	English	Cynthia Leenerts	24

### **\*Maus\*: A War Within**

*This poster illustrates a paper I wrote regarding survivor guilt in Art Spiegelman's graphic novel \*Maus\*. Survivor guilt arises when one blames oneself for surviving a catastrophe while so many did not. This guilt affects not only a survivor, but also his children, who often experience a life trapped with guilt, knowing that they can never fully comprehend, much less unravel, their parents' trauma. Maus reiterates a remarkable, true story about Holocaust survivor Vladek Spiegelman. Art Spiegelman is a prime example of a child often alienated from his father because his father's guilt over the past overwhelmed their future.*

Regina S. Koilparampil	Digital Media Technologies	Carol Walker	25
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### **The Effects of Web 2.0 Technology Tools on College Writing**

*Web 2.0 technologies have introduced a new, interactive dimension to the Internet. Blogs, Wikispaces, ePortfolios, discussion boards, and social media already flood student's everyday lives on a personal level. What, if any, educational value does Web 2.0 provide in a college writing classroom? This study offers quantitative and qualitative data on the integration of Web 2.0 into a college English writing course and the effects on student engagement, motivation, and assessment.*

Skina Shabib	Digital Media Technologies	Carol Walker	26
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### **An Exploration of iPad use for Children ages 3-5 years at the Home**

*Technology has influenced the method of learning and teaching; this kind of teaching supports constructivist and collaborative methods in a flexible methodology (Murphy, 2011). Children today need new strategies in using technology to encourage their learning. iPads and other similar tablets are great tools to integrate technology into education. A quantitative study using a survey instrument. Will be distributed through social media and hosted in Google Form. The researcher will evaluate participants regarding children's iPad use.*

Tabatha A. Cortes	Digital Media Technologies	Carol Walker	27
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### **Digital Immigrants in the Work Force**

*This study will assess attitudes, positive or negative, toward technology in the work place. Since technology has become vital source of information and communication to billions all over the world, (Goggin, 2012), it is important investigate how people feel about technology, especially those at a technological disadvantage. Data will be collected using a Likert-Scale survey distributed on Facebook. It is expected that the findings will display adults over the age of 35 will find technology be difficult to learn, but important to the 21st century work force.*

Amber Trunfio	Art and Design	Joni Oye-Benintende	28
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### **Aquaponics in Ceramics**

*This project is an aquaponic system that created in the Arts Department at ESU using clay, a fish tank, grow bed material, and a pump to transport water. The system is in itself a mini ecosystem, where fish and plants exist a symbiotic relationship, where the plants in the above plant bed filter the waste of the fish making the water clean, and the fish create the waste -- mostly a nitrogen compound that feeds the plants.*

## Poster & Display Session 2 (11:15 a.m. -12:45 p.m.)

Presenter(s)	Sponsoring Department	Sponsoring Faculty	31
Joseph Dougherty, Michael Lloret, Christopher Robinson, Asia Burnett, Yuzhe Huang, Destiny Washington, Dontel Ducksworth, Qinhui "Demi" Ma, Mary Dennis, Jannel Armstrong, Jamil Joseph, Taylor Torres, Rebecca Regina	Theatre	Stephanie Daventry French	

### **Walking a Mile in Shakespeare's Shoes**

*Through text analysis and research we breakdown Shakespeare plays. Then, through active analysis we bring our discoveries to life in unique interpretations. This will involve both a set display with sample research and analysis and pop up performances during both poster sessions of the symposium.*

Edward Bevan, Evelyn Barone, Tyler Creighton, Melecia Morant, Ashlyn Jacoby, Katie Morris, Christy Flynn, Sam T., Alyssa Garcia, Mel Rivera, Irel Zepeda, Rachel Parise, Chelsea Oplinger, Lauren Carhart, Angel Rodriguez, Nick Bourne, Chris Davis, Mckenziey Andrew	Art	Darlene Farris- LaBar	10-22
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### **Spreading Sustainability: Public Art Across the Campus**

*This multi-aspect project by students in Professor LaBar's sculpture course includes not only the 3D installations that are placed in various locations on campus, but also posters displayed in SciTech that describe the creative thinking behind each piece and a map showing the locations of these works of ephemeral public art. The common theme is the desire to provoke passersby into paying attention to the impact of humans on the natural world around them. The pieces range from a chandelier that combines fresh cut flowers, test tubes, water and energy in the form of the light to a five foot tall origami crane with "progeny" in nests all over campus.*

## Session 3 (1-3 p.m.) Oral presentations

Room 136 (1-2 p.m.)	Moderator: Dr. Jaedeoch Lee	
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<b>Andrew Brennan, Jonathan Gavilanes</b>	<b>Political Science</b>	<b>Ko Mishima</b>
<b>Effects of marijuana on education</b>		
<i>The long period of legalized usage in California, since 1996, provides a gateway to examine marijuana's effects on adolescent education. Using school test scores, such as the SAT and ACT, a comparative analysis of school test scores. Similar regions throughout the U.S. will be compared with Mendocino County; using employment, population, demographics, and income statistics.</i>		

<b>Ryan Stevens</b>	<b>Political Science</b>	<b>Kimberly Adams</b>
<b>Conceptualizing a Link between Democracy and Islam: Iran and Indonesia</b>		

*This research explores the perception that there may be a democracy deficit in Muslim-majority countries. Through a comparative analysis of Iran and Indonesia, this research examines the underlying reasons into which political, institutional and cultural factors are likely to influence an Islamic nation's level of democracy. It was theorized that the country with more of an Islamic influence would have lower levels of democracy. Through careful examination, it is determined that that there may be an apparent negative relationship between Islam and democracy, most notably with regard to the cultural effect of Islam on democracy.*

<b>Daniel C. Hagan</b>	<b>Political Science</b>	<b>Kimberly Adams</b>
<b>Guns on College Campuses: Measuring Perceptions of Campus Safety</b>		

*The focus of this study is to test the perception of campus safety and determine the impact on the perception of safety if handguns are allowed to be carried on college campuses. To test this hypothesis, a survey study is utilized. The results show people's perception of safety will in fact decrease if guns are allowed to be carried on college campuses. Further, this research explores possible influential relationships to the outcome such as gender, current perception of campus safety, confidence in campus police, and possession of a handgun carrier's permit.*

<b>Rachel Kohler</b>	<b>Political Science</b>	<b>Kimberly Adams</b>
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*The purpose of this research is to examine the relationship between gender quotas, government (democratization), religion, and the amount of female legislators in the Middle East. This research will use an OLS Regression and examine the years 2003-2013. This study will further the research on the number of women in government in the Middle East and determine if there is a positive or negative correlation between gender quotas, type of government, and type of religion with regard to the number of female legislators in a country.*

## Session 3 (1-3 p.m.) Oral presentations

**Room 136 (2-3 p.m.)**

**Moderator: Dr. Cem Zeytinoglu**

Jessica Willner

English

Bill Broun

### **Usability Study as Service Learning Project**

*My Kids Smiles usability study offers a model for research as a service learning opportunity. The project benefits a non-profit organization that is otherwise without access to front-end web development.*

**Sarah Porterfield**

**Communication Studies**

**Cem Zeytinoglu**

### **Using Public Relations to Make the United States a Brighter Place: An Analysis of the Sunshine Foundation**

*This study is a public relations analysis of the strengths and weaknesses of Sunshine Foundation, a non-profit organization dedicated to fulfilling the dreams of chronologically ill children. Thorough research of the organization's goals, objectives, strategies, and tactics was conducted. Sunshine Foundation is successful in their constant effort of raising funds, providing families with special memories, and keeping supporters involved and up-to-date. They continue to raise awareness and increase credibility. However, a usability study of their website revealed several areas of needed improvement. Sunshine Foundation provides a good model of public relations but still benefits from constructive criticism.*

**Yu (Melody) Jin**

**Professional and Secondary Ed.**

**James Vagliardo**

### **Secondary School Media Specialists' Information Literacy Instruction Programming in Northeast Pennsylvania**

*Information literacy is defined by the Association of College and Research Library as 'the set of abilities to recognize when information is needed and to locate, evaluate and use effectively the needed information' (2001). In order to inform college level instruction librarians of their incoming freshmen's information literacy skill level, the author has initiated a research to find out how information literacy skills are addressed at the secondary level in public high schools in Northeast Pennsylvania. The author will survey 78 librarians/media specialists serving public high schools in Northeast Pennsylvania using an online questionnaire of 28 items. The survey results will reveal to what extent certain information literacy skills are instructed, the resources available for information literacy instruction, and the existing hindrances for optimal instruction.*

**Room 135 (2-3 p.m.)**

**Kelsey Pulzone,  
Brandon Cabrera,  
Mary Dennis,  
Michael Lloret,  
Sara O'Donnell**

**Theatre**

**Yoshi Tanokura, Margaret  
Ball**

### **Researching and Rehearsing for the Kennedy Center American College Theatre Festival**

*This presentation will demonstrate the preparation involved with competing at The Kennedy Center American College Theatre Festival. The research methods of a stage manager and 4 actors and actresses will be explained in detail. From preparing a prompt book for a stage manager to the analysis and character development that an actor or singer goes through before they even start rehearsal. This presentation will culminate with performances of scenes and monologues prepared for this competition.*

## Session 3 (1-3 p.m.) Oral presentations

Room 147 (2-3 p.m.)

Moderator: Dr. Gerard Rozea

Emily Fila

Athletic Training

Keith Vanic

### Examining the Vestibulo-Ocular Reflex in Adolescent Ballet Dancers

*The purpose of this study is to examine if differences exist between Vestibulo-Ocular Reflexes (VOR) among leveled Ballet dancers categorized as beginner, intermediate, and advanced, in ages 14 – 18. The VOR will be measured by means of the Gaze Stabilization Test (GST) and Dynamic Visual Acuity (DVA) tests, performed on the NeuroCom® InVision™ system. Dancers will be qualified to participate by a questionnaire.*

*Participants will be disqualified if they have experienced any of the following in the last 12 months: loss of balance for no reason, unexplained syncope, sensation of spinning not associated with fever or activity, diagnosed concussion, seizure, having corrected vision worse than 20/40, consuming alcohol, sleeping pills, and/or tranquilizers in the previous 48 hours; experiencing headache, dizziness, ringing in the ears, balance problems, blurry or double vision, sensitivity to light or noise at time of data collection. The dancers will complete Static Visual Acuity (SVA) and minimum Perception (mPT) tests as baseline measures. One horizontal GST will be used as practice. One GST will be administered horizontally and one vertically, followed by one DVA test horizontally and one vertically*

Erin Whapham

Athletic Training

Gerard Rozea

### A Comparison of Experienced and Novice Athletic Trainer's CPR Skills

*This study examined the CPR skills of experienced and novice Athletic Trainers to see if there is a difference in competency. The study used a Resusci Anne Wireless Skill Reporter to record compress rate, compression depth, ventilation rate, ventilation volume, and hand placement. The study involved two groups, the experienced Athletic Trainers with five or more years of athletic training experience and novice Athletic Trainers with less than five years of experience. The study also provided results to determine about the CPR certification and recertification procedures are adequate.*

Jacqueline Wolf Tice

Health Studies

Elaine Rodriguez

### Acquaintance Rape on University Campuses

*The most common violent crime on college campuses is rape, according to the US Department of Justice. Over 50% of raped college women will tell no one of the rape and a full 90% of these rapes are committed by someone known to the victim. This is a silent epidemic in search of prevention solutions through direct policy and education-based interventions.*

Megan Napoli

Biological Sciences

Terry Master

### A Comparison of Hemlock Woolly Adelgid Infestation Levels and Acadian Flycatcher Nesting Success in Northeastern Pennsylvania

*The Eastern Hemlock is threatened by the Hemlock Woolly Adelgid in northeastern forests. By studying the Acadian Flycatcher nesting success across infestation levels in two hemlock-dominated habitats, we may be able to use this species as a bioindicator for comparing habitat productivity and infestation effects. Nesting success, pair density, hemlock preference, and HWA infestations were measured in 2013 and will continue in 2014. Compared to ravines, bench streams have more pairs/nests, lower infestation levels, and lower success rates. In moderately to heavily infested trees, 84% of nests were successful, and in low to non-infested trees, 16% of nests were successful.*

# ESU's Sigma Xi Competition at Symposium 2014

Sigma Xi (Xi is pronounced with a "Z" sound-"Zi"-as in "xylophone") was founded in 1886 to honor excellence in scientific investigation and encourage a sense of companionship and cooperation among researchers in all fields of science and engineering. The Greek letters "sigma" and "xi" form the acronym of the Society's motto, "Spoudon Xynones," which translates as "Companions in Zealous Research."

Today, Sigma Xi is an international, multidisciplinary research society whose programs and activities promote the health of the scientific enterprise and honor scientific achievement. There are nearly 60,000 Sigma Xi members in more than 100 countries around the world. Sigma Xi chapters, more than 500 in all, can be found at colleges and universities, industrial research centers and government laboratories. The Society endeavors to encourage support of original work across the spectrum of science and technology and to promote an appreciation within society at large for the role research has played in human progress.

The ESU chapter of Sigma Xi was founded in 1971. The chapter sponsors annual events at ESU to support scientific research, include a Research Forum and an Awards Banquet. At the annual Awards Banquet, outstanding students are recognized from each of the Science departments and the Mathematics department; these students are inducted into Sigma Xi. In addition, outstanding presentations from the Research Forum are also recognized and given a cash award from the Sigma Xi Faculty Memorial fund. Lastly, Sigma Xi conducts fundraising in support of these activities, including the annual Chilifest held a week before Thanksgiving.

The judges for the Sigma Xi competition at Symposium 2014 will be: **Dr. Michael Dougherty, Dr. Alan Shaffer, Dr. Bonnie Green, and Dr. Robert Marmelstein.**

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## Room 144 (1-2 pm)

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<b>He (Hannah) Jin</b>	<b>Geography</b>	<b>Shixiong Hu</b>
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**Study on the water temperature change in Brodhead Watershed**

*Temperature has a significant effect on aquatic organism. This study focuses on stream temperature change and how it may affect the water quality. Stream temperature was collected from 15 sites within local Brodhead Watershed. HOBO Pro temperature loggers were used to measure stream temperature every 15 minutes at each site from 2011-2013. The temperature readings were compared with PA DEP cold-water fishery standard to calculate the number of violations that occurred at each site. The results indicate that the highest violation rate occurred in July in most sites, and monthly violation percentage varies with a range of 81.92% - 99.7%.*

<p><b>Tyler Sickler, Karina Alfaro, Anastasia Atanasoff, Tyler Burns, Matthew Cavanaugh, Amber Dickey, Travis Dziadual, Alexander Flores, Stephen Kozak, Keith Messmer, Michael Pacanowski, Amogh Pradhan, Milen Rashkov, Carolyn Romano, Eric Sarappo, Wen Wang, Danielle Williams</b></p>	<p><b>Mathematics</b></p>	<p><b>Olivia Carducci</b></p>
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**M3 vs. US home construction**

*A new type of residential construction has been designed with the claims of being more eco-friendly and having cheaper yearly energy costs than the traditional United States home construction. Our class developed two models to demonstrate the yearly energy costs and carbon footprint for each of the types of construction. The models take into account the daily average temperatures in East Stroudsburg, Pa, the insulation properties of walls, the amount of heat given off by appliances, how each home is heated and cooled, and the type and amount of energy being used.*

<b>Deano Graham, Aisha Prodani, Savannah Doyle</b>	<b>Psychology</b>	<b>Jyh-Hann Chang</b>
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**Boosting academic self-concept through tutoring**

*Previous research has shown peer tutoring to be somewhat influential in improving academic grades at all levels of education. In the current study researchers duplicated a previously successful study however adding Academic Self Concept Scale (ASCS). The ASCS estimates the confidence a student has in his or her academic abilities. Researchers hypothesized that by being part of a tutoring program student's academic self-concept as well as their grades should improve.*

## Sigma Xi Competition --- Room 144 (2-3 pm)

Nikolai Kolba

Biological Sciences

Jane Huffman,  
Thomas Rounsville, Jr.

### **Babesia spp. in North American river otters (*Lontra canadensis*), beavers (*Castor canadensis*), muskrats (*Ondatra zibethicus*), and mink (*Neovison vison*) in Pennsylvania and New Jersey**

*Babesia* sp. is a piroplasm that infects red blood cells. Over 100 species of *Babesia* have been identified and human babesiosis is an increasing health concern in the northeastern United States. The parasite is vectored by *Ixodes scapularis* ticks. We sampled river otters, muskrats, beavers and mink in Pennsylvania and New Jersey to determine if *Babesia* spp. was present using the polymerase chain reaction. The prevalence of *Babesia* spp. in otters was 75%, in muskrats 65%, in beaver 29%, and in mink <10%. The species of *Babesia* was determined by sequencing the 18s ribosomal fragment.

Meaghan Butler

Biological Sciences

Jane Huffman,  
Thomas Rounsville, Jr.

### **Prevalence of *Borrelia burgdorferi* and *Borrelia miyamotoi* in two primary reservoir hosts and two potential arthropod vectors in New Jersey, Pennsylvania, and Connecticut**

*Babesia* sp. is a piroplasm that infects red blood cells. Over 100 species of *Babesia* have been identified and human babesiosis is an increasing health concern in the northeastern United States. The parasite is vectored by *Ixodes scapularis* ticks. We sampled river otters, muskrats, beavers and mink in Pennsylvania and New Jersey to determine if *Babesia* spp. was present using the polymerase chain reaction. The prevalence of *Babesia* spp. in otters was 75%, in muskrats 65%, in beaver 29%, and in mink <10%. The species of *Babesia* was determined by sequencing the 18s ribosomal fragment.

Shawqui Darwish

Biological Sciences

Jane Huffman,  
Thomas Rounsville, Jr.

### **Case-Control Study of NJ Black Bears (*Ursus Americanus*) Infected with *Babesia* spp.**

*Babesia* spp. are intraerythrocytic parasites that cause babesiosis in wildlife and humans. Blood samples were taken from black bears in NJ from 2006 to 2014. Sixty-three bears were spatially followed-up throughout the study. Polymerase chain reaction was used to determine the presence of *Babesia*. Of the 25 bears that tested positive for *Babesia* at baseline, 52% of them cleared the infection and 48% maintained an infection at follow-up. Of the 38 bears that tested negative for *Babesia* at baseline, 71% of them remained free of infection and 29% acquired infections at follow-up. All positive samples were sequenced to determine the species of *Babesia*.

## Sigma Xi Competition Room 144 (4-5 pm)

Nicole Chinnici

Biological Sciences

Jane Huffman,  
Thomas Rounsville, Jr.

### **Genetic Structure of American Black Bears (*Ursus americanus*) in New Jersey**

Black bears in New Jersey are a contiguous population. The population has grown due to increased black bear habitat. We evaluated aspects of genetic diversity and gene flow for 4 management zones in NJ using genotypic data from 9 microsatellite loci. Genetic diversity was measured at the individual level, and between management areas. A total of 78 alleles were observed at the 9 microsatellite loci. The number of alleles ranged from 7 to 12 per locus, with an average of 8.7 per population at each locus. Results from STRUCTURE 2.3.4 suggest that NJ black bears represent a panmictic population.

Larry Laubach

Biological Sciences

Jane Huffman

### **Seasonal prevalence of haemogregarine parasites, in the turtles *Chrysemys picta*, *Chelydra serpentina*, *Sternotherus odoratus*, and *Trachemys scripta*, from Pennsylvania and New Jersey**

Haemogregarine parasites, vectored by leeches, are commonly found in freshwater turtles. Differences have been noted in infection prevalence and parasitemia between turtle species. In this study, turtles were trapped in hoop traps or fish and crab traps baited with sardines, from eight locations in eastern Pennsylvania and western New Jersey. Blood samples were taken from the subcarapacial venous site from four species of turtles. The prevalence and severity of haemogregarine infection was recorded from the blood smears. Parasitemia was characterized as being low, moderate, or heavy. Comparisons on the seasonal prevalence were made as well as changes in parasitemia.

Janine Umberger

Biological Sciences

Jennifer White

### **Reproductive Morphology and Mating Readiness in Migratory Bats of Pennsylvania**

Little is known about mating behaviors and seasonal reproductive conditions in migratory bats, but mating is believed to occur in the fall. We studied reproductive anatomy and histology of 72 male bats of 3 migratory species (*Lasiurus noctivagus*, *Lasiurus cinereus*, *L. borealis*) collected in Pennsylvania in summer and fall across two seasons. Testis dimensions and mass decreased as fall approached, presumably because sperm are transferred to the epididymis prior to copulation. Measurements of testis size, combined with histological sectioning to assess the presence/absence of sperm, provide insight on mating readiness and therefore increase our understanding of reproduction in migratory bats.

## Session 5A - (2-2:30 p.m.) Niedbala Auditorium

2014 Thesis of the Year  
Presented by Dr. Jane Huffman to  
Catherine M. Flanley

Thesis Title:

*SEROPREVALENCE OF TOXOPLASMA GONDII, TRICHINELLA SPIRALIS AND BORRELIA BURGDORFERI IN NORTHERN NEW JERSEY BLACK BEARS (URSUS AMERICANUS).*

Catherine (Cate) Flanley earned her B.S degree from the University of Pittsburgh, and completed her work on a Masters degree in Biology here at ESU, graduating in August, 2013.

Thesis Abstract

*Black bears (Ursus americanus) may play a significant role in the spread of Toxoplasma gondii and Trichinella spiralis as an intermediate host. The goals of this study were to determine the serologic prevalence (IgG) of Toxoplasma gondii, Trichinella spiralis and Borrelia burgdorferi, compare temporal and geographical data, provide a reference point for future population management and to explore the risk and transmission Toxoplasma gondii and Trichinella spiralis to humans. Two-hundred, forty serum samples were collected from black bears located in Northern New Jersey in the research trapping and bear harvest seasons of 2012. The serum samples were tested using an indirect Enzyme-Linked Immunosorbent Assay (ELISA) protocol. IgG antibody prevalence to Toxoplasma gondii was 73.7%, to Trichinella spiralis was 0% and to Borrelia burgdorferi was 87.0%. People living in New Jersey must protect themselves from ticks and cook wild game meat properly to prevent infection by these particular parasites.*



## Session 5B - (2:30 - 3:00 p.m.) Niedbala Auditorium

**Innovation and Entrepreneurship at ESU: Presentations moderated by Carter McClure, Manager, ESU Business Accelerator. Presenters include:**

**David Good**, Founder and Chief Visionary of “The Good Project,” a business that serves as a trustworthy bridge between remote indigenous groups and the influences of increasing contact from outsiders. The Good Project collaborates with existing Non-governmental organizations (NGOs), social programs and local government bodies to provide social services such as humanitarian aid, health care assistance, and access to fair trade initiatives.

**Tom Rounsville Jr.**, Founder & CEO of Integrative Wildlife Forensics (IWF). IWF is a start-up company devoted to wildlife conservation through adapting the techniques of human forensics to cases involving poaching, wildlife trafficking, and other crimes against wildlife. IWF also seeks to develop new technologies, products, and services to aid those in wildlife management and wildlife law enforcement.

**Jonathan Weber**, Founder and C.E.O. of eIdentified, LLC., and Marathon Studios, Inc. eIdentified’s *People Search* is a powerful search engine that utilizes a proprietary recursive search algorithm to create a full profile of an individual’s internet presence and internet identities based on an email, username, handle, etc. Jonathan Weber, ESU computer science major, was the first place winner in the Pennsylvania State System of Higher Education Business Plan Competition held April 2, 2012.

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## **Featured Speaker**



# **Dr. Randal Pinkett**

offers advice on

## **The Impact of Student Research on Successful Future Careers**

Dr. Randal Pinkett is the Season 4 Winner of the NBC's reality TV Show "The Apprentice" with Donald Trump. He returns to East Stroudsburg University of Pennsylvania (ESU) as our featured speaker.

Dr. Pinkett is Founder, Chairman and CEO of BCT Partners, a multimillion dollar management consulting and information technology solutions firm. He holds five academic degrees including: Bachelor of Science in Electrical Engineering from Rutgers University, Master of Science in Computer Science from the University of Oxford in England, and a Master of Science in Electrical Engineering, MBA and Ph.D. from Massachusetts Institute of Technology (MIT). He is a highly sought after author, scholar and entrepreneur and is frequently invited to speak at corporations, colleges and universities, government agencies and community organizations.

Moderated Q&A directly following featured speaker: Mary Frances Postupack, vice president for economic development and research support

# Notes

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Mr. Luis Vidal

Dr. David Buckley