WestConn Research Day
May 2, 2013

Registration and Poster Setup 9:00 – 10:00 a.m.
Science Building Atrium – Midtown Campus

Keynote Address: Mr. Josh John 10:00 – 10:30 a.m.
Science Building Room 125 – Midtown Campus

Poster Sessions 10:30 – 12:45 p.m.
Science Building Atrium – Midtown Campus

Announcement of Winners & Concluding Remarks 12:45 – 1:00 p.m.
Science Building Room 125 – Midtown Campus

Refreshments will be served during the poster session in the Atrium of the Science Building.
KEYNOTE ADDRESS

“Driving Efficiencies and Optimizing Resources in a Fast-Paced Marketing Environment”

Mr. Josh John
Marketing Research, Respiratory

Abstract
The research completed looks at customer needs and business requirements of various internal and external stakeholders including, but not limited to, our Field Sales Force, Brand Teams, and Healthcare Providers. The research draws upon qualitative and quantitative Market Research that was used to inform our decisions on vendor identification, process improvements, and elimination of redundancies. The case study that I will be presenting resulted in the identification of a one vendor solution and numerous process improvements that saved the organization over $2 MM per year.

Biography
Josh John graduated from Western Connecticut State in December 2008 with a degree in Management Information Systems and a double minor in Information Security and Financial Accounting. During his junior year Josh began his career with Boehringer Ingelheim Pharmaceuticals. He started as an intern in their Payroll Department and was hired into Accounts Payable just three months into his internship.

Josh spent February 2007 to April 2009 in Accounts Payable where he was instrumental in the outsourcing of the Purchase to Pay Process. He spent 8 weeks in India supporting the outsource and training the team.

Beginning April 2009, Josh started in Sourcing Operations as the purchasing card administrator and supported business process mapping and analysis. In May 2010, Josh moved into a Senior Buyer role supporting Marketing & Sales where he was responsible for global sourcing strategy. In May 2011, Josh was promoted to a Global Sourcing Manager where he implemented a vendor evaluation system and a spend categorization process.

In November 2011, he moved to Marketing as a Speaker Bureau Operations Manager where he focuses on processes, methods and systems related to Peer-to-Peer Marketing.

In addition to his core job, Josh recently began two rotational assignments in Established Brands Marketing and Marketing Research supporting the Respiratory Franchise.
## Student Participants

<table>
<thead>
<tr>
<th>Abstract #</th>
<th>Author(s)</th>
<th>Title</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Aubree Albert</td>
<td>jhp1130 from <em>H. pylori</em> is a HAD phosphatase</td>
<td>Poster</td>
</tr>
<tr>
<td>2</td>
<td>Kaitlin Amini</td>
<td>Physical Activity and Cognitive Ability</td>
<td>Poster</td>
</tr>
<tr>
<td>3</td>
<td>Brittany Batterton</td>
<td>Conflicts Addressed on Facebook: How People Are Dealing With Conflicts through Facebook</td>
<td>Poster</td>
</tr>
<tr>
<td>4</td>
<td>Marlene Bautista</td>
<td>Normalized Abnormals: Stigma Management Portrayed in Prime Time</td>
<td>Poster</td>
</tr>
<tr>
<td>5</td>
<td>Serena Castelletti, Amberjean Hansen</td>
<td>Mercuric Reductase Genes in Actinomycetes and Phage Isolated from Mercury Contaminated Soil</td>
<td>Poster</td>
</tr>
<tr>
<td>6</td>
<td>Greg Chamberlin</td>
<td>Use of GIS Technology to Determine Connecticut Regions at High Risk for Influenza-Related Pediatric Hospitalizations</td>
<td>Poster</td>
</tr>
<tr>
<td>7</td>
<td>Noelle Chiafari, Sean Ferguson, Lisa Daigle, Danielle Yesulaites</td>
<td>The Distribution of <em>Lumbricus terrestris</em> in Soil</td>
<td>Poster</td>
</tr>
<tr>
<td>8</td>
<td>Malina Choi</td>
<td>Male vs. Female Attachments to Cell Phones</td>
<td>Poster</td>
</tr>
<tr>
<td>9</td>
<td>Kirby Cipot</td>
<td>The Relationship Between Personality Type and Ethical Behavior</td>
<td>Poster</td>
</tr>
<tr>
<td>10</td>
<td>Alysha Cloutier</td>
<td>Generation Effect: When Is It Stronger?</td>
<td>Poster</td>
</tr>
<tr>
<td>11</td>
<td>Melissa DiNino</td>
<td>A Spatial Analysis of Environmental Factors Related to American Black Bear (<em>Ursus americanus</em>) Sightings in Connecticut</td>
<td>Poster</td>
</tr>
<tr>
<td>12</td>
<td>Robert Dolan</td>
<td>Calculus at Work: Calculation of a Control Parameter for Design of Liquid Level Switches</td>
<td>Poster</td>
</tr>
<tr>
<td>13</td>
<td>Jennifer Efosa</td>
<td>Technology Etiquette</td>
<td>Poster</td>
</tr>
<tr>
<td>Abstract #</td>
<td>Author(s)</td>
<td>Title</td>
<td>Session</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------------------</td>
<td>-----------------------------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>14</td>
<td>Rosebella Finnegan</td>
<td>Parenting Style Influence on Political and Social Views</td>
<td>Poster</td>
</tr>
<tr>
<td>15</td>
<td>Patrick Finneran</td>
<td>Screening of Inhibitors For a Protease in the Malaria Parasite Using Fluorescence Spectroscopy</td>
<td>Poster</td>
</tr>
<tr>
<td>16</td>
<td>Jake Firmender</td>
<td>Photophysical Evaluation of 5-aryl Pyrimidines</td>
<td>Poster</td>
</tr>
<tr>
<td>17</td>
<td>Jillian Fowler</td>
<td>What role does hair color affects the willingness of college students to pursue courtship of the opposite sex?</td>
<td>Poster</td>
</tr>
<tr>
<td>18</td>
<td>Rattanaporn Friend</td>
<td>Colored Paper and Reading Performance</td>
<td>Poster</td>
</tr>
<tr>
<td>19</td>
<td>Vera Gonzalez</td>
<td>American Attitudes Towards Gun Policy After Sandy Hook</td>
<td>Poster</td>
</tr>
<tr>
<td>20</td>
<td>Kerry Grady</td>
<td>Does Appearance Really Matter? The Effects of Appearance and Descriptions on Judgments</td>
<td>Poster</td>
</tr>
<tr>
<td>21</td>
<td>Gregory Guion</td>
<td>Perception of Males Wearing Eyeglasses</td>
<td>Poster</td>
</tr>
<tr>
<td>22</td>
<td>Rayan Hage, Michael Croxton, Jonathan Sales</td>
<td>Earthworm Movement in Response to Soil PH</td>
<td>Poster</td>
</tr>
<tr>
<td>23</td>
<td>Saskia Hamburger</td>
<td>A Comparison of Spatial Thinking Between Males and Females</td>
<td>Poster</td>
</tr>
<tr>
<td>24</td>
<td>James Heffner</td>
<td>“It’s Bigger Than Just Us!”: Possibilities Beyond Traditional Dialectics in Campus Greek Organizational Perception Management</td>
<td>Poster</td>
</tr>
<tr>
<td>25</td>
<td>James Heffner</td>
<td>Attitudes and Perceptions of Social Fraternities and Sororities: Effective Organizational Leadership Response to Adverse Societal Perspectives</td>
<td>Poster</td>
</tr>
<tr>
<td>26</td>
<td>Justin Joseph</td>
<td>Can Geographical Information Systems Be Used to Determine the Quality of Blacklegged Tick Habitat?</td>
<td>Poster</td>
</tr>
<tr>
<td>27</td>
<td>Janina Jourdain</td>
<td>The Relationship between First Impressions and Judgment</td>
<td>Other</td>
</tr>
<tr>
<td>Abstract #</td>
<td>Author(s)</td>
<td>Title</td>
<td>Session</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------</td>
<td>-------</td>
<td>---------</td>
</tr>
<tr>
<td>28</td>
<td>Erika Knapp</td>
<td>Gender Identity and Conforming to Stereotypes</td>
<td>Poster</td>
</tr>
<tr>
<td>29</td>
<td>Danielle Lattrell</td>
<td>Effects of Gender on Logic Performance</td>
<td>Poster</td>
</tr>
<tr>
<td>30</td>
<td>Samantha Laurer</td>
<td>Music Selection Linking Emotional Reactions</td>
<td>Poster</td>
</tr>
<tr>
<td>31</td>
<td>Brandon Lester</td>
<td>Predicting the Distribution of Kemp’s Ridley Sea Turtle Feeding Sites in Long Island Sound Using Geographic Information System Technology</td>
<td>Poster</td>
</tr>
<tr>
<td>32</td>
<td>Priscilla Machado</td>
<td>Predicting Eastern Painted Turtle Conservation Areas in Fairfield County, CT Using Geographic Information Systems</td>
<td>Poster</td>
</tr>
<tr>
<td>33</td>
<td>Geneva Maddison, Anisa Barolli</td>
<td>Investigating the Major Groove of DNA: Thermal Denaturation</td>
<td>Poster</td>
</tr>
<tr>
<td>34</td>
<td>Amanda Marchitto</td>
<td>Aggressive and Non-Aggressive Emotions while Driving</td>
<td>Poster</td>
</tr>
<tr>
<td>35</td>
<td>Stefanny Martinez</td>
<td>Reaction Time to Various Pictures and Words</td>
<td>Poster</td>
</tr>
<tr>
<td>36</td>
<td>Peter Maruzzella</td>
<td>Synthesis of 5-Aryl Modified Nucleosides</td>
<td>Poster</td>
</tr>
<tr>
<td>37</td>
<td>Deborah McGuigan</td>
<td>Perception of Individuals with Tattoos</td>
<td>Poster</td>
</tr>
<tr>
<td>38</td>
<td>Michael McKinney</td>
<td>The Use of Emotions to Improve Advertising</td>
<td>Poster</td>
</tr>
<tr>
<td>39</td>
<td>Kaleigh Metayer</td>
<td>Effects of Gender on Recall of Same-Gendered Items</td>
<td>Poster</td>
</tr>
<tr>
<td>40</td>
<td>James Mills</td>
<td>Predicting Areas of Probable Infection of West Nile Virus</td>
<td>Poster</td>
</tr>
<tr>
<td>41</td>
<td>Ashley Mims, William Whamond, Samantha Quattro</td>
<td>She Likes My Status</td>
<td>Webisode</td>
</tr>
<tr>
<td>Abstract #</td>
<td>Author(s)</td>
<td>Title</td>
<td>Session</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------</td>
<td>-------</td>
<td>---------</td>
</tr>
<tr>
<td>42</td>
<td>Ashlie Morris</td>
<td>The Effect of Peer Pressure on a College Students’ Decisions</td>
<td>Poster</td>
</tr>
<tr>
<td>43</td>
<td>Brianna O'Grady, Joey Mauro, Vin Mizzoni</td>
<td>Confession</td>
<td>Other</td>
</tr>
<tr>
<td>44</td>
<td>Fernanda Oliveira</td>
<td>Challenges Facing Latino Children in the American Education System</td>
<td>Poster</td>
</tr>
<tr>
<td>46</td>
<td>Erick Orozco, Allane Oliveira, Greg Chamberlin</td>
<td>Investigating Co-culturing Protocols of Murine Cardiomyocytes and Neurospheres</td>
<td>Poster</td>
</tr>
<tr>
<td>47</td>
<td>Thaiani Paca</td>
<td>Protein Expression to Study Programmed Cell Death, Apoptosis, in the Malaria Parasite</td>
<td>Poster</td>
</tr>
<tr>
<td>48</td>
<td>Mallory Papp</td>
<td>Observing the Effects of Dams on the Ecology of <em>Podostemum ceratophyllum</em> (river weed) using Geographic Information Systems</td>
<td>Poster</td>
</tr>
<tr>
<td>49</td>
<td>Taylor Pasquence</td>
<td>Spatial Analysis of Potential Seed Dispersal Mechanisms of Mile-A-Minute Vine (<em>Persicaria perfoliata</em>) in New Milford, Connecticut</td>
<td>Poster</td>
</tr>
<tr>
<td>50</td>
<td>James Pesantez</td>
<td>The Effects that Weight-Stigma Has on the Way People Perceive Obese Individuals</td>
<td>Poster</td>
</tr>
<tr>
<td>51</td>
<td>Eryn Petruny</td>
<td>Effects of Color on Memory</td>
<td>Poster</td>
</tr>
<tr>
<td>52</td>
<td>Thomas Pickel</td>
<td>Synthesis of 5-Aryl Deoxycytidine Nucleosides</td>
<td>Poster</td>
</tr>
<tr>
<td>53</td>
<td>Keith Pirraglia</td>
<td>Is Work Experience Relevant to the School One Attends When Applying for a Job?</td>
<td>Poster</td>
</tr>
<tr>
<td>54</td>
<td>Keith Pirraglia</td>
<td>Performance Enhancing Drugs in Baseball: 1986-2006</td>
<td>Poster</td>
</tr>
<tr>
<td>55</td>
<td>Jean-Luc Plante</td>
<td>Using GIS to Identify Conservation Areas for the Eastern Spadefoot Toad in Fairfield County, CT</td>
<td>Poster</td>
</tr>
<tr>
<td>Abstract #</td>
<td>Author(s)</td>
<td>Title</td>
<td>Session</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------</td>
<td>-------</td>
<td>---------</td>
</tr>
<tr>
<td>56</td>
<td>Jennifer Reid, Karen Thompson</td>
<td>Identifying Barriers to Chemical-based Tickborne Disease Prevention Measures: A Survey of Health Fair Participants in Fairfield County, Connecticut</td>
<td>Poster</td>
</tr>
<tr>
<td>57</td>
<td>Nicole Riss, Reggie Christophe, Stephen King, Malcom Blackwell</td>
<td>Multiverse</td>
<td>Short Film</td>
</tr>
<tr>
<td>58</td>
<td>Esau Rojas</td>
<td>Comparing Forest Edge To Babesiosis Risk In Connecticut: Results Of A GIS Analysis</td>
<td>Poster</td>
</tr>
<tr>
<td>59</td>
<td>Kelby Sandoval</td>
<td>The Effects of Grooming on Self-Esteem and Happiness</td>
<td>Poster</td>
</tr>
<tr>
<td>60</td>
<td>Katherine Santeramo</td>
<td>A World of Creation</td>
<td>Poster</td>
</tr>
<tr>
<td>61</td>
<td>Mike Saunders</td>
<td>The Effect of Music on Happiness: The More Music the Better</td>
<td>Poster</td>
</tr>
<tr>
<td>62</td>
<td>Eileen Schaub</td>
<td>Alliaria petiolata Invasion and Risk Analysis Using Geographic Information Systems</td>
<td>Poster</td>
</tr>
<tr>
<td>63</td>
<td>Lauren Silva</td>
<td>Gender Differences in Memory</td>
<td>Poster</td>
</tr>
<tr>
<td>64</td>
<td>Laura Simpson</td>
<td>Passionate Optimism: Love and Personality in College Students</td>
<td>Poster</td>
</tr>
<tr>
<td>65</td>
<td>Victoria Spahn</td>
<td>The Effect Cell Phone Use has on Students While Driving</td>
<td>Poster</td>
</tr>
<tr>
<td>66</td>
<td>Rachel Tripodi</td>
<td>Relationship between Students’ Self-Esteem and Teacher Feedback</td>
<td>Poster</td>
</tr>
<tr>
<td>67</td>
<td>Jackie Underwood</td>
<td>The Effect of Doodles on Retention of Information</td>
<td>Poster</td>
</tr>
<tr>
<td>68</td>
<td>Jaime Urteaga</td>
<td>The Effects of Gamification on Student Learning</td>
<td>Poster</td>
</tr>
<tr>
<td>69</td>
<td>Michael Zeilnhofener</td>
<td>Light Curve Analysis of Transiting Exoplanets</td>
<td>Poster</td>
</tr>
<tr>
<td>Abstract #</td>
<td>Author(s)</td>
<td>Title</td>
<td>Session</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------------</td>
<td>---------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>70</td>
<td>Lauren Zuvich</td>
<td>The Future of Persuasion and Leisure</td>
<td>Poster</td>
</tr>
</tbody>
</table>
# Faculty Participants

## Research Sponsors

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Carina Bandhauer</td>
<td>Social Sciences</td>
</tr>
<tr>
<td>Dr. JC Barone</td>
<td>Communications</td>
</tr>
<tr>
<td>Dr. Rondall Khoo</td>
<td>Psychology</td>
</tr>
<tr>
<td>Dr. Neeta Connally</td>
<td>Biological &amp; Environmental Sciences</td>
</tr>
<tr>
<td>Dr. Dennis Dawson</td>
<td>Physics, Astronomy, and Meteorology</td>
</tr>
<tr>
<td>Dr. Frank Dye</td>
<td>Biology</td>
</tr>
<tr>
<td>Dr. Jessica Eckstein</td>
<td>Communication</td>
</tr>
<tr>
<td>Dr. Robin Flanagan</td>
<td>Psychology</td>
</tr>
<tr>
<td>Dr. Nicholas Greco</td>
<td>Chemistry</td>
</tr>
<tr>
<td>Dr. Ruth A. Gyure</td>
<td>Biological and Environmental Sciences</td>
</tr>
<tr>
<td>Dr. Gregory Jackson</td>
<td>History</td>
</tr>
<tr>
<td>Dr. Rondall Khoo</td>
<td>Psychology</td>
</tr>
<tr>
<td>Ms. Jeanne Lakatos</td>
<td>Writing, Linguistics &amp; Creative Process</td>
</tr>
<tr>
<td>Dr. Lydia Novozhilova</td>
<td>Mathematics</td>
</tr>
<tr>
<td>Dr. Patricia O'Neill</td>
<td>Psychology</td>
</tr>
<tr>
<td>Dr. Bill Petkanas</td>
<td>Communication &amp; Media Arts</td>
</tr>
<tr>
<td>Dr. Theodora Pinou</td>
<td>Biological and Environmental Sciences</td>
</tr>
<tr>
<td>Dr. Helena Prieto</td>
<td>Chemistry</td>
</tr>
<tr>
<td>Dr. Anne Roberts</td>
<td>Chemistry</td>
</tr>
</tbody>
</table>
1  **jhp1130 from *H. pylori* is a HAD phosphatase**  
_Aubree Albert_  
_(Dr. Anne Roberts, Dept. of Chemistry)_  
*Helicobacter pylorus* is a gram-negative bacterium that colonizes the human stomach and causes gastric ulcers. Although the *H. pylori* genome has been sequenced, the functions of many of *H. pylori*'s genes are not yet known. The gene jhp1130 has been identified as a member of the HaloAcid Dehalogenase (HAD) superfamily. The presence of three conserved sequence motifs indicates that the jhp1130 protein likely functions as a small molecule phosphatase. We have cloned, expressed, and purified the protein and have tested its activity against a variety of small molecule phosphorylated substrates. The goal of this research is to determine the metal ion dependence, pH dependence, and the true in vivo substrate and metabolic function of the jhp1130 enzyme.

2  **Physical Activity and Cognitive Ability**  
_Kaitlin Amini_  
_(Dr. Rondall Khoo, Dept. of Psychology)_  
The purpose of this study is to examine how an individual's cognitive function is affected by physical activity, or the lack of physical activity. Exercising on a daily basis is not only healthy for one's body, but for their brain as well. When a person is physically active, it is easier for the brain to absorb and retain information. It is hypothesized that people who are active to some degree on a daily basis, will perform better on cognitive tasks than those who are not. Cognition relates to processes such as attention, memory, learning, reasoning, and problem solving.

3  **Conflicts Addressed on Facebook: How People Are Dealing With Conflicts through Facebook**  
_Brittany Batterton_  
_(Dr. Jessica Eckstein, Dept. of Communication)_  
Modern technology seems to be diminishing the need for face-to-face communication, especially with the use of social media web sites such as Facebook. For some individuals, Facebook has almost completely replaced the need for face-to-face interactions. This study focuses on how people deal with conflict by using Facebook. 30 students from Western Connecticut State University, 15 male and 15 female between the ages of 18 and 25, participated in this study. Purposive convenience sampling was used to collect the data. Subject’s feelings towards society with evolving technological forms of communication are discussed.
4 Normalized Abnormals: Stigma Management Portrayed in Prime Time
Marlene Bautista
(Dr. Bill Petkanas, Dept. of Communication & Media Arts)
Erving Goffman’s taxonomy of stigma management is employed to examine the management techniques in media. The medical drama, “Grey’s Anatomy” was selected for study as it has a disabled character in the cast, who represents what Goffman calls a “discredited” (visible or obvious) social stigma. A variety of management techniques were noted, including (1) creating social distance, (2) concealing, (3) withdrawing, (4) asserting and (5) accepting. The overall portrayal of this character is positive and heroic, and the production supports cultural norms that disabilities are not a hindrance to successful careers and relationships.

5 Mercuric Reductase Genes in Actinomycetes and Phage Isolated from Mercury Contaminated Soil
Serena Castelletti and Amberjean Hansen
(Dr. Ruth A. Gyure, Dept. of Biological and Environmental Sciences)
Bacterial isolates in the actinomycete family and their associated bacteriophage were obtained from a mercury contaminated brownfields site in Danbury, CT (Barnum Court). Mercuric reductase genes were amplified using isolated DNA as template and four different primer pairs. Amplimers of different lengths were obtained and these did not necessarily correlate with taxonomic clades. It was hypothesized that phage associated with these bacteria would harbor mercuric reductase genes and this was found to be the case. These pieces of evidence suggest possible horizontal transfer of resistance genes through phage transduction.

6 Use of GIS Technology to Determine Connecticut Regions at High Risk for Influenza-Related Pediatric Hospitalizations
Greg Chamberlin
(Dr. Neeta Connally, Dept. of Environmental and Biological Sciences)
The spread of influenza has been associated with areas of low socioeconomic status. In particular, evidence suggests that high levels of poverty and crowding in New Haven County, Connecticut are linked to at least a threefold increase in incidence of influenza-related hospitalizations in children. Thus, geographic information systems (GIS) technology was used to determine Connecticut census tracts with high levels of poverty and/or crowding in order to direct more effective vaccination and education programs. It was found that those regions at the highest risk were concentrated in cities and other urbanized areas, especially Hartford, New Haven, Bridgeport, and Waterbury.
7 The Distribution of *Lumbricus terrestris* in Soil
Noelle Chiafari, Sean Ferguson, Lisa Daigle, and Danielle Yesulaites
(Dr. Theodora Pinou, Dept. of Biological and Environmental Sciences)
The earthworm (*L. terrestris*) is an invasive annelid and has been reported to change soil ecology through decomposition of organic matter and soil aeration. This study tests the linear movement of earthworms to determine if they move socially in soil. The study measured the number of worms found in partitioned gutters over 4 weeks. Preliminary results may contribute to the understanding of foraging strategies used by the slimy salamander (*Plethodon glutinosus*) who feed on the invasive worms.

8 Male vs. Female Attachments to Cell Phones
Malina Choi
(Dr. Rondall Khoo, Dept. of Psychology)
This study examined the level of attachment to cell phones among males and females at WCSU. Subjects were asked to rate on a scale of 1 to 4 their level of attachment in three settings which included work, school, and recreation. Scores determined attachment by querying use of cell phones in these settings on a scale ranging from one representing “never use" to four representing “always use." Scores of males and females were tabulated and compared. It was predicted that females would have a higher score and therefore greater attachment to cell phones than males.

9 The Relationship between Personality Type and Ethical Behavior
Kirby Cipot
(Dr. Rhondall Khoo, Dept. of Psychology)
This study examined how personality type relates to an individual's tendencies towards dishonest behavior. While attitude and behavior often differ, this study examined whether certain behaviors are personality type-specific. In the study, individuals were asked to fill out a personality survey based on the Eysenck Personality Questionnaire to determine their type. Participants were then asked to read ten scenarios, and were required to answer what they would do if presented with the situation described in each scenario.

10 Generation Effect: When Is It Stronger?
Alysha Cloutier
(Dr. Patricia O'Neill, Dept. of Psychology)
This research considers the generation effect. This effect states that individuals display higher recall when they generate words themselves versus being given words. This research compares the generation effect using two different stimuli, words and images. Preliminary results show that generated images produce higher recall than generated words. Both generation conditions seem to produce higher recall than either given-stimuli condition.
11 A Spatial Analysis of Environmental Factors Related to American Black Bear (*Ursus americanus*) Sightings in Connecticut
Melissa DiNino
(Dr. Neeta Connally, Dept. of Biological & Environmental Sciences)
Exirpated from Connecticut until about 1980, the American black bear population has recovered to approximately 500-1000 bears. With this increase, there have been over 2,700 sightings in the past year alone. Geographic Information Systems were used to identify environmental variables affecting the spatial range of this species. Analyses showed black bear sightings were related to high average town elevation. Other town-level variables that were evaluated included percent of forest coverage, population density, and total road length, as studied in previous research. These results may be useful for addressing American black bear management issues in Connecticut.

12 Calculus at Work: Calculation of a Control Parameter for Design of Liquid Level Switches
Robert Dolan
(Dr. Lydia Novozhilova, Dept. of Mathematics)
A local CT company, Innovative Solutions, designs and produces a variety of liquid level float switches that are used in tanks and wells. For the ongoing process of automation, the company needs analytical computation of a control parameter – the height of a float’s submergence into a given liquid. In response to the company’s request, we developed a model that uses only simple calculus techniques and the buoyancy principle and wrote a general algorithm for solving the problem. The algorithm can be easily implemented using the code in SolidWorks, the software widely used in 3D CAD (Computer Aided Design).

13 Technology Etiquette
Jennifer Efosa
(Dr. Jessica Eckstein, Dept. of Communications)
This project looked at the effect of mobile-use technology on face-to-face verbal interactions with family and friends. The body language and verbal communication of 16 people in 4 groups at restaurants were observed. Results indicate that phone use was distractive to the group; mobile-use technology decreased face-to-face interactions within each group.
14 Parenting Style Influence on Political and Social Views
Rosebella Finnegan
(Dr. Rondall Khoo, Dept. of Psychology)
This study examines the correlation between a subjects' upbringing and their political opinion. It specifically examined the role that authoritarian, authoritative and permissive parenting styles had on a subject’s political and social views. Subjects completed two surveys: one on the parenting style, the other on political and social opinions. It was found that parents who tended to be more authoritarian tended raise conservative leaning children; parents who tended to be more permissive tended to raise more liberal leaning children; and parents who tended to be more authoritative had a mixture of liberal and conservative children.

15 Screening of Inhibitors For a Protease in the Malaria Parasite Using Fluorescence Spectroscopy
Patrick Finneran
(Dr. Helena Prieto, Dept. of Chemistry)
Malaria is a disease found mostly in remote parts of the world. It is caused by the protozoan Plasmodium falciparum. Recent studies look into the possibility of apoptosis in single cellular organisms like yeast. Apoptosis is regulated by Cytochrome C in all mechanisms known to date. Studying the function of Cytochrome C allows us a better understanding of the protozoan that causes malaria and can lead toward an effective cure. The aim of the study is to test the Cytochrome C activity in the activation of the protease responsible for cell death in P. falciparum by using fluorescence spectroscopy.

16 Photophysical Evaluation of 5-aryl Pyrimidines
Jake Firmender
(Dr. Nicholas Greco, Dept. of Chemistry)
Deoxyribonucleic acid (DNA) is an essential biomolecule whose properties have been of scientific significance since its discovery. Experimentation with DNA has focused on modifications made to the sugar backbone or nucleobases of native nucleosides. Through studying the modified nucleotides a greater understanding of their properties and overall stability can be reached. Our research is focused on a series of 5-aryl nucleosides, whose photophysical properties will be investigated. The absorption and emission properties of these modified nucleosides will be used to determine the location of the modified nucleotides within the DNA duplex.
17 What role does hair color affects the willingness of college students to purse courtship of the opposite sex?
Jillian Fowler
(Dr. Jessica Eckstein, Dept. of Communication)
This study focuses on why specific hair colors are more "attractive" over other colors and if a specific stereotype is connected with a particular color. Forty students at Western Connecticut State University (N = 15 men, 25 women) were surveyed to determine their personal preferences for various hair colors. Results from men and women were compared. Findings varied. This study contributes to improving our understanding of societal preferences for hair color.

18 Colored Paper and Reading Performance
Rattanaporn Friend
(Dr. Rondall Khoo, Dept. of Psychology)
This study was designed to determine whether using black text on a green background would increase reading speed and word recognition. The experiment used a 2x2 experimental design; there were two texts (long and short) on green paper and the other on white. Subjects received one of the four texts, and subjects were asked to count how many times they found "the" in the text. The number of missed occurrences of the word provided the data to determine whether there was measurable difference in the number of missed words when subjects were presented with text on green background compared to white.

19 American Attitudes Towards Gun Policy After Sandy Hook
Vera Gonzalez
(Dr. Carina Bandhauer, Dept. of Social Sciences)
In this ethnographic research project, we conducted in-depth interviews with residents of Connecticut, researching how attitudes towards gun policy have or have not changed after the Sandy Hook tragedy. The answers were analyzed and compared with the quantitative data from the Pew Research Center and Quinnipiac University poll, both asking about gun control after the Sandy Hook incident. The findings reveal that the tragedy in Sandy Hook did help to fortify a stance for gun control.
20 **Does Appearance Really Matter? The Effects of Appearance and Descriptions on Judgments**

*Kerry Grady*

*(Dr. Rondall Khoo, Dept. of Psychology)*

This study examined the difference between the judgments of subjects when presented with only superficial visual data and the judgments of subjects who were also provided with more description along with the visual data. The study sought to provide some insight on whether negative superficial impressions were prevalent despite the growing diversity of the population.

21 **Perception of Males Wearing Eyeglasses**

*Gregory Guion*

*(Dr. Rondall Khoo, Dept. of Psychology)*

The purpose of this study is to see if subjects perceive those who wear eyeglasses as being less aggressive and less intimidating than those who are not wearing eyeglasses. Persons who wear eyeglasses have been shown in past research to be perceived as more intelligent, more competent and more sensitive. Subjects were shown five photographs on a computer and then asked to answer questions about the photographs.

22 **Earthworm Movement in Response to Soil PH**

*Rayan Hage, Michael Croxton, and Jonathan Sales*

*(Dr. Theodora Pinou, Dept. of Biological and Ecological Sciences)*

This preliminary study examines the movement of *Lumbricus terrestris*, an invasive soil invertebrate, across a pH gradient ranging from 4.2 to 7.0. Data from 2010 and 2012 CT DOT reports estimate macroinvertebrate abundance at varied soil pH along US Rt. 7 in Brookfield CT. These DOT results suggested that the likelihood of finding *L. terrestris* in soil with neutral pH had increased over two years. Understanding the movement of these invasive worms is important because they share soil habitat with the threatened *Plethodon glutinosus*, which is known to feed on soil macroinvertebrates and is sensitive to soil pH.

23 **A Comparison of Spatial Thinking between Males and Females**

*Saskia Hamburger*

*(Dr. Rondall Khoo, Dept. of Psychology)*

The purpose of this study is to examine differences between males and females spatial reasoning. Many believe that men are better at spatial reasoning and spatial thinking. Subjects will be tested on four different types of spatial reasoning; group rotation, reading maps, 3-dimensional shapes, and combining shapes. Results will be discussed.
“It’s Bigger Than Just Us!”: Possibilities Beyond Traditional Dialectics in Campus Greek Organizational Perception Management
James Heffner
(Dr. Jessica Eckstein, Dept. of Communications)
This study explored non-Greek college students’ perceptions of Greek-letter organizations at WCSU. Participants’ self-report data revealed varying interaction-experiences with Greek-letter organizations. The nature of these interactions were tied to select impressions, which were interpreted in terms of personal versus organizational tensions for both Greek (micro vs. macro identities) and non-Greek (WCSU collective vs. desired inclusion) students. Results were interpreted through the lens of dialectical tensions inherent in organizations and individuals’ lives. Alternative tensions were proposed to explain the process which Greek and non-Greek members interpret and manage perceptions of the larger system.

Attitudes and Perceptions of Social Fraternities and Sororities: Effective Organizational Leadership Response to Adverse Societal Perspectives
James Heffner
(Dr. Carina Bandhauer, Dept. of Social Sciences)
Research on negative implications of attitudes and perceptions toward social fraternities and sororities detract from the actions taken by the organizational leadership in response to adverse and threatening attitudes and perceptions by members and non-members alike. This study explores college students’ attitudes and perceptions toward Greek-letter organizations. Subjects participated in a survey and/or interview and demonstrated that negative conceptions of Greek Life necessitates a proactive response from organizational leadership; this response should advance the ideals and values of Greek Life and avoid falling victim to preconceived and malicious attitudes and perceptions.

Can Geographical Information Systems Be Used to Determine the Quality of Blacklegged Tick Habitat?
Justin Joseph
(Dr. Neeta Connally, Dept. of Biology)
Blacklegged ticks can transmit Lyme disease and other infections to humans. These ticks are found in forested environments in Connecticut. Geographical information systems (GIS) technology is a potential tool for determining the quality of blacklegged tick habitats. The distances from residences to forests were calculated using GIS and compared with observed tick habitat quality data. An association between distance to forest and quality of habitat was found. On average, residences located within 15 meters of forests had good quality tick habitat. GIS may be a useful tool for determining the quality of blacklegged tick habitat.
27 The Relationship between First Impressions and Judgment
Janina Jourdain
(Dr. Rondall Khoo, Dept. of Psychology)
This study examined how individuals may positively or negatively judge others based on solely facial expression. Because facial expressions communicate emotions, it is common to judge the disposition of others based on this component of first impressions. Each subject was provided with a random picture of males and females showing different facial expressions, and then were asked to complete a 10-item Likert Scale survey to provide a judgment on that person. It was hypothesized that subjects who viewed images of happy facial expressions would positively judge the person in the image; while subjects who viewed neutral facial expressions would tend to make more negative judgments.

28 Gender Identity and Conforming to Stereotypes
Erika Knapp
(Dr. Rondall Khoo, Dept. of Psychology)
This study examined how individuals conform to gender specific stereotypes and the influence of media on gender depiction. Previous research has found that once a person is labeled as conforming to an identity, they are more likely to conform to it and self-identify with that label. Some participants were asked to answer a multiple choice questionnaire regarding perception of stereotypes and then shown video of women in the media. Other participants were shown the video before completing the questionnaire. Conformity to stereotypes and the influence of the media were measured by the change in response when comparing the two groups of participants. It was hypothesized that women were more likely than men to conform to gender specific stereotypes, especially stereotypes common in the media.

29 Effects of Gender on Logic Performance
Danielle Lattrell
(Dr. Rondall Khoo, Dept. of Psychology)
This study examined performance differences in the completion of logic problems between males and females. Subjects were given logic problems that were mathematical which had concrete solutions and logic problems with more abstract solutions. Noticeable differences were found between genders and the type of problem solving skills within them that was prevalent.
30 Music Selection Linking Emotional Reactions
Samantha Laurer
(Dr. Rondall Khoo, Dept. of Psychology)
Music's effect on human emotions has been a studied extensively. Researchers have theorized that music comprised of the major key can change a person's emotional state leading to feelings of happiness. The minor key can create the same change, but leads to feelings of sadness. The variation between major and minor keys may be crucial for improving our understanding as to why an individual’s emotions could relate to song selection. In a between subjects experimental design, undergraduate students enrolled in a psychology class at Western Connecticut State University were asked to provide feedback on whether music can alter emotions through major and minor keys.

31 Predicting the Distribution of Kemp’s Ridley Sea Turtle Feeding Sites in Long Island Sound Using Geographic Information System Technology
Brandon Lester
(Dr. Neeta Connally, Dept. of Environmental and Biological Sciences)
The Kemp's Ridley sea turtle (*Lepidochelys kempii*) is an endangered species native to Long Island Sound and in need of conservation. The Sound provides feeding grounds for juvenile Ridley sea turtles. Their diet consists primarily of crabs, but they also consume shellfish and eelgrass. Crabs consume shellfish, and eelgrass beds are primary habitats for shellfish. Knowing these ecological connections, geographic information system technology (GIS) was used to predict feeding locations of juvenile Ridley sea turtles by overlaying eelgrass bed locations upon known shellfish distributions. The results of this analysis can be used to inform Ridley sea turtle conservation efforts.

32 Predicting Eastern Painted Turtle Conservation Areas in Fairfield County, CT Using Geographic Information Systems
Priscilla Machado
(Dr. Neeta Connally, Dept. of Biology)
Eastern painted turtle (*Chrysemys picta picta*) populations are particularly vulnerable to road associated mortality because of relatively slow travel speed and migration to favorable habitat conditions and nesting sites. Habitat areas with high road density are most at risk for turtle population mortality. Using geographic information systems (GIS) technology, high road density was used to determine the Fairfield County towns having the most habitat areas at risk: Fairfield, Stamford, and Stratford. Fairfield had 3.19% of its habitat areas at risk due to road density. Therefore, Eastern painted turtle conservation efforts should first be targeted within these high risk towns.
33 Investigating the Major Groove of DNA: Thermal Denaturation
Geneva Maddison and Anisa Barolli
(Dr. Nicholas Greco, Dept. of Chemistry)
The stability of double stranded DNA is governed by the properties of nucleotide bases and their interactions amongst neighboring base pairs. Nearest neighbor interactions predict the relative stabilities of a duplex based on the identity and orientation of neighboring base pairs, and can be used to calculate oligonucleotide melting temperatures (Tm), which are a direct reflection of the base pair sequence in a DNA duplex. In this study, Tm analyses were conducted on a triply modified oligonucleotide to determine its stability, and thermodynamic parameters relative to the native sequence.

34 Aggressive and Non-Aggressive Emotions while Driving
Amanda Marchitto
(Dr. Rondall Khoo, Dept. of Psychology)
The purpose of this research is to examine how individuals react to certain driving situations. Subjects were assigned to one of three groups and asked to read one of three scenarios, each involving an automobile accident. Group 1 read a scenario in which a driver was professional and behaved neutrally after an accident. Group 2's scenario had a driver who was concerned for the well-being of the other driver. In Group 3's scenario, the driver was yelling about an accident. It was hypothesized that individuals will express a more aggressive emotional reaction in Group 3; when an individual feels stressed or attacked in a situation, he/she is more likely to express the same type of behavior.

35 Reaction Time to Various Pictures and Words
Stefanny Martinez
(Dr. Rondall Khoo, Dept. of Psychology)
This study examined the reaction time of subjects to pictures and words. Subjects were presented with a picture that automatically changed to a word and were asked to state whether the word matched the picture, was unrelated to the picture, or was related but did not match the picture. Results will be discussed.
36 Synthesis of 5-Aryl Modified Nucleosides
Peter Maruzzella
(Dr. Nicholas Greco, Dept. of Chemistry)
Over the last several decades, the synthesis of modified nucleosides has aided in the understanding of deoxyribonucleic acid (DNA) structure and function. Synthetic modifications have focused on the phosphate backbone, ribose ring or nucleobase. Our research focused on nucleobase modifications, specifically the synthesis of novel 5-aryl modified thymidine analogues. Recently, nitrogen containing heterocycles such as pyridine and pyrimidine have been successfully attached to the uridine core via Suzuki coupling. These nucleosides will later be site-specifically incorporated into short oligonucleotide sequences for biophysical investigations.

37 Perception of Individuals with Tattoos
Deborah McGuigan
(Dr. Rondall Khoo, Dept. of Psychology)
This study examined the reaction of subjects to persons with tattoos and whether assumptions are made regarding the intelligence and socio-economic standing of tattooed persons. Subjects were given a set of photographs showing individuals with and without tattoos which included questions about the individual underneath the image. It was found that individuals who do not have tattoos negatively judged and stereotyped individuals who did have tattoos. This was found to be especially true if the subject knew nothing about the person with the tattoo.

38 The Use of Emotions to Improve Advertising
Michael McKinney
(Dr. Rondall Khoo, Dept. of Psychology)
The purpose of this study is to take a closer look at the media's manipulation of emotion in advertising. It is generally assumed that emotion is one of the stronger ways to persuade individuals to elicit a desired response and this tactic is often displayed in modern media. Even if people are aware of the attempts of persuasion, they are often more focused on the message being presented. This is in part due to the primal nature that emotions touch upon in humans, making it harder to ignore or override them. Two types of responses are generally desired when dealing with advertisement; happiness or sadness (related to guilt or envy.) This research will expose subject to advertisements that are geared at utilizing these emotions. Subjects will rate how affective they perceive the advertisements to be using a Likert scale. It is hypothesized that advertisements that utilize the emotion of happiness will provoke a more desirable response.
39 Effects of Gender on Recall of Same-Gendered Items
Kaleigh Metayer
(Dr. Robin Flanagan, Dept. of Psychology)
The conscious process of thinking about one's gender directly affects the individual's ability to recall gendered words. In this study, the individual's ability to recall gender-specific words that matched the subject's gender was examined. The 25 participants were randomly placed into one of two groups and were either asked to think about their gender or not. Both were shown the same list of 16 words and later instructed to recall them. Contrary to other findings, this study showed that there was not a significant difference in the ability to recall gendered words. Further recommendations to improve this study will be discussed.

40 Predicting Areas of Probable Infection of West Nile Virus
James Mills
(Dr. Neeta Connally, Dept. of Biology)
West Nile virus (WNV) is a mosquito borne disease that has increased its presence in the United States since its first outbreak in 1999. Identifying key mosquito breeding would be useful for mitigating the spread of the disease. Using geographical information systems technology and Data from UCONN Map and Geographic Information Center, a spatial analysis of two coastal counties was conducted to identify breeding areas for specific species that are vectors of WNV. The areas identified represent regions where mosquito abatement programs could be targeted in order to reduce WNV transmission.
41 She Likes My Status
Ashley Mims, William Whamond, and Samantha Quattro
(JC Barone, Dept. of Communications)
Introduction:
Lily Treasher and Sean Michaels are two average, all American teenagers wrapped up in the popular social network site “Facebook”. The two actually meet online, talk online, and even ask one another out online through “Facebook”. Sean and Lily share all the same frustrations many teens their age experience, and its through these experiences that the audience learns, laughs, and even cries as the social network phenomenon unravels through this seven minute webisode. Feelings of love, endearment, and even frustration, are all exhibited by these two teens as the two toil through the fabric of the social network sensation known as “She Likes My Status”.

Methodology:
A series of close ups, breaking the fourth wall, musical emotives and narratives to the audience defines the styles. We also used a number of different close up and medium shots to change up the frame. We shot using a single camera indoors. By using different lighting methods it helped us to create a morning and evening feel.

Result/Discussion:
The final project was intensely cut, including some of the script because of the length to seven minutes. Aspect ratio is 16:9 and resolution is1080. Since the showing is for web the final display codec is H264 and down to 4:3 aspect for web.

42 The Effect of Peer Pressure on a College Students’ Decisions
Ashlie Morris
(Dr. Rondall Khoo, Dept. of Psychology)
This study examines how peer pressure affects how college students make decisions. Holly Heller-Ross (2004) found that women are more likely to succumb to peer pressure to help others, whereas men are more apt to succumb to peer pressure when it will benefit them. Other research suggests that women hold themselves to higher moral standards than men and are more concerned with the negative effects of their behaviors. This research builds upon previous research on how college students are affected by their peers and, more specifically, investigates whether males or females are more susceptible to peer pressure.
Confession
Brianna O'Grady, Joey Mauro, and Vin Mizzoni
(Dept. of Communications)
Confession is a short film about a man who has committed a crime but quickly realizes he has made a mistake. In hopes of finding spiritual redemption, he reveals his secret to a priest and unexpectedly learns of an opportunity to try to change his past. This short film was shot in 1080p high definition, 16:9 aspect ratio, and filmed and edited over three weeks with a single camera. One interior location and low-key lighting were used. The crew consisted of a producer, director, editor and two cast members.

Challenges Facing Latino Children in the American Education System
Fernanda Oliveira
(Dept. of Social Sciences)
The Latino populace in the United States is expected to continue increasing greatly. The Latino student population is gaining a more and more prominent presence in the United States each year. Research has found that Latino students are constantly underperforming and the achievement gap between Latinos and students of other backgrounds remains disconcertingly large. Based on previous academic research, a study of elementary school age Latinos was conducted to provide an in-depth look at the current Latino education crisis. Further research was done to explore the how different aspects, such as language and resources, affect Latino education.

Can Connecticut Support Wind Farms?
Using Geographic Information Systems to Determine Wind Turbine Placement
Bruna Oliveira
(Dept. of Biological & Environmental Sciences)
In lieu of the detrimental environmental impacts of long-established power sources in the United States, wind energy has been considered an alternative to fossil fuels. Geographic Information Systems are useful for incorporating essential parameters for maximum efficiency and minimum environmental and social impact. ArcGIS software was used to establish a framework for the development of wind farms in Connecticut. Wind potential, elevation, population density, and various environmental considerations were used for establishing suitable areas for wind turbine installation. The resulting model will serve to predict the extent that wind energy can be further developed and improved in Connecticut.
46 Investigating Co-culturing Protocols of Murine Cardiomyocytes and Neurospheres

Erick Orozco, Allane Oliveira, and Greg Chamberlin
(Dr. Frank Dye, Dept. of Biology)

Different isolation protocols were carried out on murine cardiomyocytes and neurospheres in order to determine the most effective forms of studying these cell types in co-culture. Up to now, results indicate that co-culturing of these tissues is more successful under proliferation than in differentiation media. Data also indicates that co-culturing of these tissues in coated flasks with Poly-D-Lysine and Laminin was detrimental to the cells. Our results contradict previous studies that indicated that Laminin coated flasks enhances attachment and development of both cell types in culture.

47 Protein expression to study programmed cell death, apoptosis, in the malaria parasite

Thaiani Paca
(Dr. Helena Prieto, Dept. of Chemistry)

Plasmodium falciparum, the causing agent of malaria affects large part of the population in the tropics and show signs of apoptosis. The preliminary data collected on drug treated sample of malaria using proteomics hints towards the involvement of Cytochrome C. The ability to express the latter as a heterologous protein has been a challenge on these studies. A two plasmid approach has been attempted that allows the production of the Heme prosthetic group needed for correct folding of Cytochrome C. After producing the protein of interest the next step is to find its role in the apoptosis of P. falciparum.

48 Observing the effects of dams on the ecology of Podostemum ceratophyllum (river weed) using Geographic Information Systems

Mallory Papp
(Dr. Neeta Connally, Dept. of Biology)

Podostemum ceratophyllum (river weed) is an aquatic plant species that occurs in high flowing rivers and streams. It is thought to be sensitive to its environment; therefore, these plants are of concern for becoming endangered in Connecticut. Dams have been known to cause changes in the ecology of water habitats, and many dams have been built within Connecticut. Geographic Information Systems were used to determine changes in the ecology of river weeds. The results of the analysis suggest that river weeds are resilient to change; the presence of river weeds was clearly observed in four dammed river systems.
49 Spatial Analysis of Potential Seed Dispersal Mechanisms of Mile-A-Minute Vine
(*Persicaria perfoliata*) in New Milford, Connecticut

Taylor Pasquence  
(Dr. Neeta Connally, Dept. of Biology)

Mile-a-minute (MAM) vine (*Persicaria perfoliata*) is a seed-producing invasive plant that grows at such a fast rate that it out-competes native vegetation. Geographic information systems technology was used to identify high risk locations in New Milford, Connecticut for MAM by mapping regions where seed-eating (SE) birds and mice are most probable, as well as along bodies of water where water can disperse seeds. A chi-square test indicated that MAM is not dispersed equally in SE birds, mice, and water dispersal zones; the distribution of MAM patches between these three categories suggests that SE bird dispersal is the most probable.

50 The Effects that Weight-Stigma Has on the Way People Perceive Obese Individuals

James Pesantez  
(Dr. Rondall Khoo, Dept. of Psychology)

Previous research suggests that discrimination, negative judgments, and prejudicial bias against obese people exists in many cultures (Puhl & Brownell, 2009). The hypothesis of this research was that subjects would perceive obese individuals in medical issue Condition 1 (health-related at fault) more negatively than obese individuals in medical issue Condition 2 (non-health-related not at fault). Subjects were asked to complete an ATOP questionnaire before the start of the experiment. Subjects were shown images of obese individuals and their perception of the image was measured using a BSR scale. Results will be discussed.

51 Effects of Color on Memory

Eryn Petruny  
(Dr. Robin Flanagan, Dept. of Psychology)

Short term memory recall has been shown to be better with color than with black and white images. This study looks at the difference in the recall rate of 18 participants who either saw pictures of colorful flowers or black and white flowers. The results found no significant difference between both color and black and white conditions. Further research should involve a better specification of content and color used in the pictures.
52  **Synthesis of 5-Aryl Deoxycytidine Nucleosides**

*Thomas Pickel*
*(Dr. Nicholas Greco, Dept. of Chemistry)*

The biological importance of DNA is evident in that nearly all living organisms use it to store and transfer genetic information. Previous research has concentrated on modifying the native nucleosides found in DNA in order to modulate its function. Nucleoside modifications have focused on synthetically altering the sugar, phosphate backbone, or nucleobase. Our research is focused on nucleobase modification; converting previously investigated 5-aryl deoxyuridine analogues to the corresponding deoxycytidine analogue. These nucleosides will later be incorporated in short oligonucleotides for biophysical evaluation.

---

53  **Is Work Experience Relevant to the School One Attends When Applying for a Job?**

*Keith Pirraglia*
*(Dr. Rondall Khoo, Dept. of Psychology)*

This experiment looked at factors important in hiring. Participants were presented with one of six different cases, each providing background information about a potential employee. The participants were then asked to complete a questionnaire about whether they thought it likely the potential employee would be hired. Results show that relevant work experience is perceived as a beneficial requisite for being hired.

---

54  **Performance Enhancing Drugs in Baseball: 1986-2006**

*Keith Pirraglia*
*(Dr. Gregory Jackson, Dept. of History)*

This research investigates why people negatively perceive the use of performance-enhancing drugs in baseball. We investigate why steroids are considered "cheating" when players use drugs to gain an advantage over their opponents. This paper argues how steroids can have a positive effect on the game of baseball and attempts to reduce the public's negative perception on the use of steroids.
55 Using GIS to Identify Conservation Areas for the Eastern Spadefoot Toad in Fairfield County, CT
Jean-Luc Plante
(Dr. Neeta Connally, Dept. of Biology)
The Eastern spadefoot toad (Scaphiopus holbrookii) has become an endangered species in Connecticut primarily due to habitat loss. They prefer to inhabit areas with well-drained sandy soil at low elevations near vernal pools. As a result of their specific environmental requirements, areas of the state which could support a population of these toads are limited. Geographic information systems technology was used to determine areas potentially at risk for Eastern spadefoot toad habitat loss in Fairfield County. This analysis highlights the regions of Fairfield County where conservation efforts could be targeted.

56 Identifying Barriers to Chemical-based Tickborne Disease Prevention Measures: A Survey of Health Fair Participants in Fairfield County, Connecticut
Jennifer Reid and Karen Thompson
(Dr. Neeta Connally, Dept. of Biological & Environmental Sciences)
Chemical measures are among the recommendations aimed at preventing tickborne diseases. Despite published data suggesting such measures are effective at reducing tick populations and/or preventing human tick bites, the use of chemical measures is not widespread. A survey was conducted to help identify potential barriers to the use of such chemically-based approaches. Participants at health fairs throughout Fairfield County, Connecticut were asked to complete a survey regarding the effectiveness, safety, and cost of using chemical measures. While most respondents were aware that repellents and residential yard sprays were used for prevention, they questioned the safety and efficacy of these measures.

57 Multiverse
Nicole Riss, Reggie Christophe, Stephen King, and Malcom Blackwell
(Dr. JC Barone, Dept. of Communications)
Multiverse is a five-minute production about an ordinary man named Simon who lives a painfully mediocre life with his wife, his baby and his career as an engineer. Every day he goes through his scheduled motions of waking up to his alarm, letting his wife take care of the crying baby, getting out of bed, washing his face, going to work, etc. One day his schedule is interrupted by a life form from an alternate universe.
58 Comparing Forest Edge To Babesiosis Risk In Connecticut: Results Of A GIS Analysis

Esau Rojas

(Dr. Neeta Connally, Dept. of Biology)

Babesiosis is an emerging disease that infects red blood cells and is transmitted by blacklegged ticks. Ticks and their hosts commonly frequent forested edge habitats. A previous study showed a positive correlation between the amount of forested edge and county-level babesiosis incidence in New York State. A preliminary spatial analysis of thirteen years of Connecticut disease surveillance data was conducted. The total length of forested edge in Connecticut counties was not correlated with average babesiosis incidence rates. Future analyses of babesiosis risk in Connecticut should incorporate additional mechanisms of human-tick interactions.

59 The Effects of Grooming on Self-Esteem and Happiness

Kelby Sandoval

(Dr. Rondall Khoo, Dept. of Psychology)

This study examines the relationship between grooming and one's self-esteem and happiness. It is hypothesized that individuals with good grooming habits have higher self-esteem and are happier than those who don't. Subjects were given three surveys relating to grooming habits, self-esteem and happiness, respectively. Results will be discussed.

60 A World of Creation

Katherine Santeramo

(Mrs. Jeanne Lakatos, Dept. of Writing, Linguistics and Creative Process)

The writing of short stories deals with the creative process, including one’s inner voice, nuances like lack of inspiration, ambivalence when wondering if anyone cares what is written, persistence to create a story worth reading and collaboration with other authors. My innovation in this field will be to help others embrace the creative process. I would like to teach young adults to embrace their talent and accept criticism. I want to inspire people of all ages to learn to write short stories as an escape from negative life experiences.
61 The Effect of Music on Happiness: The More Music the Better
Mike Saunders
(Dr. Rondall Khoo, Dept. of Psychology)
This study examined the role music plays in one's life and how it may effect happiness. It is assumed by many that music in one's life may be therapeutic and that listening to or playing music creates a diversion from stress and anxiety. Participants were asked to fill out a questionnaire relating to the involvement of music in their lives, their sense of well-being (indicating their happiness, stress, etc.), and if they felt an increase in the role of music in their lives would benefit them. It was hypothesized that the greater importance subjects placed on music, the more positive their outlook, and thus their resulting increased level of happiness.

62 Alliaria petiolata Invasion and Risk Analysis Using Geographic Information Systems
Eileen Schaub
(Dr. Neeta Connally, Dept. of Biology)
Garlic mustard (Alliaria petiolata) is an invasive species found in temperate US forests that harms native species by producing toxins. This project investigated the relationship between plant density and soil characteristics. Four sites in Bethel, CT were sampled and subjected to spatial and statistical analysis using geographic information systems. No apparent relationship was found between plant density and soil drainage, but plant density was significantly related to soil type. The results of this analysis may help determine a more targeted method of garlic mustard control.

63 Gender Differences in Memory
Lauren Silva
(Dr. Rondall Khoo, Dept. of Psychology)
The purpose of this study is to take a closer look at the differences in short-term memory across the genders (male vs. female). It is generally assumed that because females are more meticulous and attentive to details in comparison to males, females have better memory recognition than males. This experiment is based on short-term memory recognition, which is the storage of memory through short registration and to recognize the given stimuli. In the present study, participants will be presented with visual-based memory stimuli, receive a verbal distraction, and then tested on the visual-based memory stimuli. It is hypothesized that females would have better memory recognition in comparison to males.
Passionate Optimism: Love and Personality in College Students
Laura Simpson
(Dr. Rondall Khoo, Dept. of Psychology)
The purpose of this study is to examine whether there is a correlation between romantic love and level of optimism in college students. Love is an emotion that can strengthen the self-esteem and confidence of certain individuals. Optimism is a personality trait, and one that this study researched to determine if correlation between the traits of romanticism and optimism exists.

The Effect cell phone use has on students while driving
Victoria Spahn
(Dr. Patricia O'Neill, Dept. of Psychology)
This research investigates whether a commercial can change students' opinions about the danger of texting while driving. Forty participants are split into four groups. The first group is asked to read a scenario that describes a person texting while driving. The second group is asked to watch an advertisement about the dangers of text and driving, then asked to read scenario #1. The third and fourth groups are conducted the same way except they read a different scenario that describes a person texting while driving with a passenger in the car.

Relationship between Students’ Self-Esteem and Teacher Feedback
Rachel Tripodi
(Dr. Rondall Khoo, Dept. of Psychology)
The purpose of this study is to compare how a college student's self-esteem effected their reaction to negative or positive feedback from a professor. Students received various forms of feedback, such as: a simple letter grade, a statement of approval or apprehension, or specific details on how to improve performance. The students had the option of reacting to that feedback in a way of their own choosing. The study explored how the participants responded to feedback on an emotional level, motivational level, their acceptance of responsibility, their acceptance of criticism, and their interaction with the professor based on a scale. Results pointed to self-efficacy playing a role in students’ reactions and showed a correlation between self-esteem and a student's acceptance and usage of criticism.

The Effect of Doodles on Retention of Information
Jackie Underwood
(Dr. Rondall Khoo, Dept. of Psychology)
This study examined how well subjects retain information they read when in combination with either a blank page, or a page with unrelated doodles. The goal was to determine whether random imagery would attract the reader's attention and disrupt their retention. It was hypothesized that the unrelated doodles would impair a participant's retention.
68 The Effects of Gamification on Student Learning
Jaime Urteaga
(Dr. Rondall Khoo, Dept. of Psychology)
Teaching methods have remained unchanged for many years. With the advent of new
technologies such as cell phones, the way in which people learn best may have changed.
Studies suggest that individuals exposed to smart phones and other technologies at a
younger age have distinctly different neural firings than older people who were not exposed
to these technologies at a younger age. Thus, younger people could potentially benefit from
a more engaging approach to learning. The purpose of this research is to test the hypothesis
that including game-like elements in teaching can enhance learning.

69 Light Curve Analysis of Transiting Exoplanets
Michael Zeilnhofer
(Dr. Dennis Dawson, Dept. of Physics, Astronomy, and Meteorology)
The intent of this research was to gather information on selected transiting exoplanets and
compare the transit depths of different exoplanet types and transit geometries. Exoplanets
were selected by their sky location (declination higher than 30 degrees), magnitude (brighter
than 12.5), and transit depth (greater than 0.0123 magnitude). Observations were made
between September and December of 2011 and 2012 using the 20-inch telescope, CCD
camera and an R filter at the Westside Observatory. The evaluation of noise sources in the
observing system, and results for the exoplanets CoRot-8b, WASP-3b, HAT-P-32b and
WASP-33b, will be reported.

70 The Future of Persuasion and Leisure
Lauren Zuvich
(Dr. Bill Petkanas, Dept. of Communication & Media Arts)
The purpose of this applied research is to examine the art of persuasion in public relations,
marketing and virtual reality. The concept of a virtual reality vacation is used as a product
for potential marketing. Assuming the technologies that would allow a person to virtually
experience an exotic vacation can be developed, this study demonstrates how such a product
could be marketed via social and digital media.
Western Research Day is possible because of contributions of students, faculty, staff and administrators. It is sponsored by the Provost's Office at Western Connecticut State University.

Appreciation and thanks to people who made this event possible

Dr. James Schmotter, President
Dr. Jane Gates, Provost and Vice President of Academic Affairs
Office of Publications and Design
Office of Public Relations

Judges
Ellen Abate, Department of Nursing
Katherine Allocco, Department of History
Carina Bandhauer, Department of Social Sciences
Christine Berte, Nursing Department
Esther Boriss, Purchasing
James Boyle, Department of Meteorology and Physics
Mark Case, Department of Administrative Services
Michael Chappell, Department of English
Stavros Christofi, Department of Mathematics
Neeta Connally, Department of Biological & Environmental Sciences
Roger Connor, Police
Matthew Dabros, Department of Social Sciences
Daryle Dennis, Student Affairs
Jessica Eckstein, Department of Communication
Robin Goodrich, Department of Nursing
Nicholas Greco, Department of Chemistry
William Joel, Department of Computer Science
Brian Kennison, Haas Library
Virginia King, Education and Education Psychology
Jeanette Lupinacci, Department of Nursing
Michelle Monette, Department of Biological & Environmental Sciences
Patrice Morris, Department of Justice and Law Administration
Patricia O'Neill, Department of Psychology
Bozena Padykula, Department of Nursing
Joan Palladino, Department of Nursing
Caitlin Pereira, Academic Advisement
Burton Peretti, Department of History
William Petkanas, Department of Communication
Judith Prieto, Department of Chemistry
Judges (continued)
Rachel Prunier, Department of Biological & Environmental Sciences
Catherine Rice, Department of Nursing
Casey Rudkin, Department of Writing, Linguistics & Creative Process
Jim Rudkin, Professional-in-Residence, Department of English
Howard Russock, Department of Biological & Environmental Sciences
Jeffrey Schlicht, Department of Health Promotion & Exercise Sciences
Paul Simon, Division of Student Affairs
S. Alba Skar, Department of World Languages & Literature
Jack Tom, Department of Art
Linda Warren, Department of Nursing
Kathryn Wiss, Department of Communication

WRD Volunteers
Isabella Anaicta
Lillian Arena
Tracey Arias
Luisa Forero
Mercedes Koehler
Dionne Kotev
Brittney Maia
Robert Peck
Karen Thompson

WRD Planning Committee
Emilio Collar, Co-Chairman, MIS Department
Susan Maskel, Co-Chairman, Department of Biological & Environmental Sciences
Debbi Johnson, Department of Biological & Environmental Sciences
Brian Stevens, Library