NYIT
NEW YORK INSTITUTE OF TECHNOLOGY

school of architecture and design
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SOURCE

SYMPOSIUM OF UNIVERSITY RESEARCH AND CREATIVE EXPRESSION

FRIDAY APRIL 29, 2011: 10 A.M.- 5 P.M.

KEYNOTE SPEAKER

DR. DON GREENBERG
PROF. OF COMPUTER GRAPHICS
CORNELL UNIVERSITY

EVENT LOCATIONS

CONFERENCE REGISTRATION
AND SESSIONS
16 W. 61ST ST.

KEYNOTE
AUDITORIUM ON BROADWAY
1871 BROADWAY
BETWEEN 61ST AND 62ND ST.

Symposium on University Research and Creative Expression (SOURCE) 2011

New York Institute of Technology

Dear NYIT Faculty, Staff, Students, and Friends:

Welcome to the Eighth Annual SOURCE of NYIT!

Creative expression and research with faculty members have become integral parts of a student's educational experience at New York Institute of Technology. The SOURCE is intended to provide a unique opportunity for students to present their research and creative scholarly work in collaboration with their faculty members and mentors. The SOURCE also generates a common ground for interdepartmental, interschool, and interdisciplinary communication.

I am very pleased to inform you that 88 abstracts were accepted for presentation and more than 250 undergraduate and graduate students of NYIT, representing all campuses, schools and colleges, have authored or co-authored these abstracts. The depth and breadth of the projects are strong indications of the quality of our teaching and learning at NYIT. I would like to take this opportunity to congratulate all the students for their academic excellence at NYIT.

Many individuals in the NYIT community have worked on the event diligently to make it a success. I would like to extend a very special thank you to all the students, faculty, administrators and volunteers who assisted with the preparation, management, and operation of SOURCE.

Sincerely,

Dr. Roger Yu, Dean
College of Arts and Sciences
Chair, SOURCE Committee

Symposium on University Research and Creative Expression *2011 Program*	
10:00 AM - 10:20 AM	**REGISTRATION and BREAKFAST** **NYIT Conference Center, 11th Floor, 16 W. 61st Street, New York, NY 10023**
10:30 AM - 11:45 AM	**SESSION I**
12:00 PM - 1:00 PM	**LUNCH and KEYNOTE PRESENTATION** ***Left Brain/Right Brain: Round Two*** ***Four Decades of Change in Visual Computing and What Comes Next*** **By: Professor Don Greenberg** **NYIT Auditorium on Broadway, 1871 Broadway, New York, NY 10023**
1:15 PM - 2:30 PM	**SESSION II**
2:45 PM - 3:45 PM	**SESSION III**
4:00 PM - 5:00 PM	**CERTIFICATE PRESENTATION** **President Edward Guiliano** **NYIT Auditorium on Broadway, 1871 Broadway, New York, NY 10023**

Session I 10:30 AM- 11:45 AM	**10th Floor Room 1029 Moderator: Ronit Kahana-Kalman**	**10th Floor TV Studio/Room 1021 Moderator: Nicholas Bloom**	**7th Floor Room 721 Moderator: Niharika Nath**	**10th Floor Room 1026 Moderator: Jacqueline Taylor Basker**
10:30 AM	"Nutrition and Fitness Habits of College Students"	"The Efficacy of Medical Marijuana for Pain Relief"	"Epidemiology of Injuries in the Elite Female High School Lacrosse Player"	"The Digital Homogenization of Film and Television Production"
	Jenna Zarb, Aimee Joseph and Francesca Capitelli	Ahmed Hawash	Michelle Dong, Lauren Engel, Lauren O'Boyle, Andrea Pasquarella, David Serkes, Kathryn Smith, Lauren Stoebe and Danielle Valle	Douglas Guerra
10:45 AM	"How Does College Student Employment Relate to Stress?"	"PSA- Suicide"	"Effects of Upper Extremity Exercises on Handwriting Legibility and Speed"	"The Revamping of NYIT Manhattan's Student Activities Advertising Campaign"
	Emmanuella Denis, Kemara James, Katia Mendez and Stephanie Tiwari	Nadege Poncet, Arnaud Delastre, Raphael Rivasi and Valerie Bruno	Amelia Singh, Frances E. Omaga and Darshana Patel	Elizabeth Hutzler
11:00 AM	"Emotion Regulation Skills and Strategies Among Mexican, Dominican and African American Toddlers"	"Cognitive Development in Children and Effectiveness of the Head Start Program"	"Zebrafish: A Model System for Characterizing the Actions of Anesthetics"	"An Online Tweets/Microblogs Collection and Analysis Tool"
	Jacqueline Saleh	Yvonne Boinett	Goretti Chiang and Jaskiran Ghuman	Hao Liu, Hua Fang, Kai Chen and Hong Chen
11:15 AM	"Immigrants Perceptions of Police in Pasadena County"	"The Effect of Multiculturalism and Colorblindedness On Trait Judgments"	"Correlations Between Different Human Genes Based Upon Similarities In Alternative DNA Structures"	"Framing Design"
	Kevin Cardoza	Saaba Ahmed, Subrina Mcleod, Theresa Piccolo and Alexandra Falbo	Kayvan Dastgheib-Beheshti, Sahil Kohli, Anthony Pasquarella and Shabia Rehmat	Ashley Foster
11:30 AM	"The Public's Perception of Police Officers after a Voluntary or Involuntary Experience"	"The Effect of Incremental and Entity Theories on the Voting Attitude of College Students"	"Dissection of Bovine Eye Globe for the Isolation of DNA from the Normal Crystalline Lens"	"Another Day Running"
	Joseph Vinciguerra	Brigette Kirschmer, Daniel Jackson and Maniver Sandhu	Guram Abaishvili, Nina Bhagat, Justine Chen, Samuel Franck Nde Tene, Natashia Hamilton, Dominic Kalathivila, Sherin Koshy, Priya Nanda, Sarah Syed and Constance Sorisi	Victoria Reyes

Session II 1:15 PM - 2:30 PM	10th Floor Room 1029 Moderator: Niharaka Nath	10th Floor TV Studio/Room 1021 Moderator: Terry Nauheim Goodman	7th Floor Room 721 Moderator: Ana Petrovic	7th Floor Room 722 Moderator: Karen Friel
1:15 PM	"The Usage of Numbers as Literary Devices"	"I Am Beautiful PSA"	"Electromagnetism as a By-Product of Moving Vectors in an Oscillating and Commutative Subspace-Time Field"	"Carleton Group-Long Island Volunteer Center"
	Charlotte Chen	Jonathan Dipierro, Ellie Mayerhoff, Kate Hickey, Ryan Jones, Ravali Munipalle and Shanni Scherer	Ikoro Nduka Ikoro	Jennifer Caruso, Thulani Nagazimbi, Raisa Chen and Zilong Jiao
1:30 PM	"Life. Live it. Give it."	"Homosexuality Acceptance: 'Think Before You Speak'"	"Thermochemical Storage of Intermittent Renewable Energy Sources using the Reversible Hydration/Dehydration of Calcium Oxide/Calcium Hydroxide"	"HIVision"
	Neetu Krishnan, Bareia Chaudhry and Anahita Ahuja	Mounia Arraki, Julia Abecassis, Pierre-Jean Riccini and Elodie Usai	Jason Philip Samuel	Melis Akalin, Mannish Taneja, Antonio Lumley, Stephany Bonnard, and Colton Sheehan
1:45 PM	"Poetry of the Heart"	"Works by Linkin Park and Sophocles Regarding Low Self-Esteem"	"Smart Wind Turbines"	"The 6MWT: Do Different Methods of Administration Affect Performance Between Healthy Older Adults and Young Adults?"
	Bijon Miles	Cindy Cobo	Maulik P. Joshi	Shaina Flanzraich, Carmen Navarrete, Shweta Shah and Aida Naguib
2:00 PM	"The Over Rated Journey of the American Dream"	"A Qualitative Examination of the Beneficial Effects of Exercise on Individuals Recovering From Substance Abuse Addiction"	"Sustainability of the U.S. Transport System Through the Use of Algae Biodiesel"	"Healthcare Crisis and Role of Managed Healthcare"
	Terrence A. Beach, Mariam Torou, Tanner Stocum and Ivan Ortiz	Nina Cesare, Toyia Roberts and Stephanie Serieux	Kenneth Martin	Ruchiben Patel
2:15 PM	"Happiness and Success"	"PSA- Domestic Violence"	"Protein Kinase C-2 Substrates and Pathways"	"Baby Care System"
	Maciek Serafin	Frank Bosi, Marine Barbato, Olivia Roure, Delphine Chrysanthos and Marion Garcia	Shanacy Marler, Karan Lal, James Solomon, Chanakya Bavishi and Madiha Yasin	Qianqian Liang, Yingjia Li, Yixiao Xu and Xiang Ji

Session III 2:45 PM - 3:45 PM	**10th Floor Room 1029 Moderator: Rozina Vavetsi**	**10th Floor TV Studio/Room 1021 Moderator: Carol Dahir**	**7th Floor Room 721 Moderator:**	**7th Floor Room 722 Moderator: Youjeong Kim**
2:45 PM	"Project: We Believe'"	"A Quantitative Study of New York City School Counselor Priorities, Perceptions and Activities"	"Your Stay, Your Choice"	"No Wonder! The Fun Organic Sweet Chocolate Treat"
	Natasha Jahangir Butt	Jessica Arkin, Sunita Budhiraja, Magalie Casimir , Emily Hsieh, Zodie Tyson and Kristina Zemaityte	Louie Oliver, Claudia Hoang, Maylissa Auguste and Lauren Blando	Wijdan Al-Johani, Amanda Browne, Monika Mimmanen, Adriana Muniz and Gabrielle Slow
3:00 PM	"NO Releasing JS-K Induces Cytotoxicity"	"The Effects of Sleep Preparation on Sleep Onset in Adolescents"	"Fed Challenge"	"The Sting of Stigma"
	Waleed Abdel-Naby	Zuleika Tenf and Tania Samuel	Geoffrey Kaicher and Roger Jameson	Tara Fraser
3:15 PM	"Phylogenetic Analysis of Protein Families"	"The Effects of Acute and Chronic Caffeine Use on Myocardial Oxygen Consumption in College-Aged Adults"	"NYIT School of Management: Creating Student Leaders"	"Solar Pump and Still"
	Fauzia Bagum, Thuy Tien Le and Saleem Khan	Katherine Knips, Sung Hyun Chung, Brian Crane, Melissa Cuda, Gilberto Diaz, Roman Gressel, Michael Viscuso and Andrew Zambiasi	Andrew Lai	Himanshu Upadhyay
3:30 PM	"The Effects of Phototherapy on Muscle Performance"	"Using Second Life to Improve Class Room Participation with Adult Learners"	"FIELD TRIP School"	"Network Security through (IPv4 compared to IPv6) Packet Filtering"
	Katherine Levane, Michael Santo,Tony Li, Joshua Klein, Ray Northern, Jeffrey Espinoza, Christina Rando and Lev Borukhov	Luc-Philippe Paulemon	Adele Schachner	Aree Nader

On Permanent Display Conference Center Lobby, 11th Floor	
“People: Mind Crash’”	Fadi Abu-Haltam and Mohamad Saada
“Healing With Aesthetics”	Hanaa Babieh and Reem Smadi
“The Mystery of Ba'La: Neolothic Barricades”	Bashar Mahdawi
“Comparison of Quantum Dots to Organic Fluorophores as Fluorescent Labels in Binding Assays”	Mosadoluwa Obatusin
“Mandated Student Service Hours”	Ream Bahassan
“Physician Assistants Perception of Direct to Consumer Advertising (DTCA)”	Justin Anzalone, Michael Suprenant and Asha Mathews
“Special Project B (Film Making Project: Gilgamesh Pearl)”	Hamad Abdulla Ali and Sara Ahmed
“Pet Ownership & Its Relationship in Meaningful Occupation for Adults”	Sylvia Kamran, Rena Liu and Cecilia Peralta
“Relationship of Tomophobia (Fear of Surgery) to Sexual Abuse: A Role for Occupational Therapy”	Stefanie Gofter, Danielle Mongelli and Malarie Moore
“Evaluation of the Home Care Fall Reduction Initiative Risk Assessment Screening Tool Generated Interdisciplinary Balance Program”	Kristin Engesser, Dipal Patel, Antonios Kambouris and Victoria Gonzalez
“Participating in a Global Health Initiative in Ghana: A Toolkit to Facilitate Student Success”	Margarita Koutsouras
“Designing A Water Chamber To Optimize 3D Protein Imaging”	Peter Ghali
“La Vida De So Los Muertos (The Life of the Dead)”	Jonathan C. Greco

On Permanent Display Conference Center Lobby, 11th Floor	
“Imagine Academy Masquerade Promo”	Jabari Clarke-Pennegan
“The Effect of the PostureJac Stabilization on Lower Abdominal Endurance”	Justin Chilesky, Denise Crooks, Chris Estafanous, Christopher Horan, Dalwoo Lee, Jessica Matarrese, Julie Vancour and Michael Wirth
“Wish Upon A Star”	Eizle-Bern Galang
“Advertising Campaign for Applegate Farms”	Jenelle Richards-Davis, Aiche Sissoko, Jie Gu and Sijia Xie
“Molecular Phenotypes of Neocortical Malformations in C57BL/6J Mice: An *In Silico* Analysis Using the Allen Brain Atlas”	Elsaid Salem, Elizabeth George, Dhruv Patel and Paulina Guta
“The Circulatory System: The Anatomy and Evolutionary Development of the Human Circulatory System Versus that of the Thescleosaurus Dinosaur”	Aisha Aziz, Reetu Sondhi, Jennifer Ardila, Aleeya Setaruddin and Fadila Radoncic
“Comparison of Gran Plot Method and the Dsnlls Method Using Potentiometric Titration”	Aisha Ashfaq and Fateha Ahmed
“Love, Lost, Found”	Michael DeNiro and David Roberts
“Stereochemical Elucidations of Organophosporus Pesticides via Chiroptical Methods”	Qurratul Jameel
“The Characterization of Alternative DNA Structures in Xeroderma Pigmentosum Genes”	Sarah Syed, Justine Chen, Dibnain Nanda, Priya Nanda and Midath Habeeb
“Cell Counting of Normal Human Epidermal Tissue”	Aleshaw Dinaram and Mohammed Islam
“Microbial Energy Solutions”	Ronika Sethi
“Visual Culture???”	Corey-Dwayne Lewis
“Nirvana”	Saila Mukta and Crystal Haroon

On Permanent Display Conference Center Lobby, 11th Floor	
"Demo Studio Showcase"	David Cole, Vaughn Sams, Caprica A. Stanley and Michael Robertson
"Subway Tunnel Set Design/Build/Lighting"	Andrew Hankins
"Automobile Advertising: A Creative's Dream"	Jenniffer Alban, Alex Bennett, and Max Behr
"United We Stand: New York State Nurses Association Lobby Day Preparing Nursing Students for Political Activism: Applied Action Research"	Karine Nelson, Tesha Bonner, Hero Pamnani, Winola See Wing To, Lino Jacob, Malaura Rosselli, Dershawn Sibbles, Margarita Koutsouras, Rowena Mohabir, Sayanna Hilaire, Jessica Guglielmoni, Junie Philitas, Lianna Jackson, Regina Vilsaint, Jasmine Sancho and Samantha Nicole Davis

Session I Presentations
10th Floor
Room 1029
Moderator: Ronit Kahana-Kalman
10:30 am-11:45 am

- "Nutrition and Fitness Habits of College Students"
  By: Jenna Zarb, Aimee Joseph and Francesca Capitelli

- "How Does College Student Employment Relate to Stress?"
  By: Emmanuella Denis, Kemara James, Katia Mendez and Stephanie Tiwari

- "Emotion Regulation Skills and Strategies Among Mexican, Dominican and African American Toddlers"
  By: Jacqueline Saleh

- "Immigrants Perceptions of Police in Pasadena County"
  By: Kevin Cardoza

- "The Public's Perception of Police Officers after a Voluntary or Involuntary Experience"
  By: Joseph Vinciguerra

Nutrition and Fitness Habits of College Students

Student Name: Jenna Zarb, Aimee Joseph and Francesca Capitelli
Faculty Mentor: Dr. Ronit Kahana-Kalman
Department: Behavioral Science

Obesity and being overweight are growing health problems in the United States, which are associated with other health risks, including hypertension, diabetes and heart disease. Obesity is affecting adults of all ages, including children, adolescents and young adults. In 2006, The Center for Disease Control and Prevention (CDC) reported that 42.7% of 18-to 24-year-olds were overweight or obese (Gropper, Simmons, Gaines, Drawdy, et al., 2009). Moreover, in recent decades, the greatest increases in the prevalence of overweight and obesity are among young adults of college age.

The transition to college is often a stressful time when many young adults experience weight changes. Stress, unhealthy eating, lack of sleep, and lack of exercise routines are often reported among college students, which may play a role in body weight changes, particularly among freshmen (Lowry, et al., 2000). In a recent study of college students, diets of younger classmates were found to be based on fewer meals and poorer nutritional values than diets of fourth year college students. Although fourth-year college students had better eating habits than second year students, older students were still under par according to national standards of a healthy dietary intake (Nelson, Larson, Barr-Anderson, Neumark-Sztainer, Story, 2009).

More research in needed to better understand the health risks involved in poor eating and exercise habits of college students. Studies on health habits of college students also need to include more diverse samples. To address this gap, the current study uses survey data to examine the nutrition and exercise habits of college students from diverse ethnic and racial backgrounds. Furthermore, this study examines the differences in nutrition and exercise habits between lower (i.e., freshmen and sophomores) and upper (i.e., juniors and seniors) college students, males and females, and students of low versus high academic/work workloads.

Data collection is currently ongoing and to date, over 80 college students at NYIT- Old Westbury campus completed the survey. In line with previous research we hypothesize that college upper classmen will have better Nutrition and Fitness habits than lower classmen. Data analysis will explore differences in nutrition and exercise habits of female and male students and students will low versus high academic/work workloads. Results from this study will add to the literature on health habits of college students by including an ethnically diverse sample.

How Does College Student Employment Relate to Stress?

Student Name: Emmanuella Denis, Kemara James, Katia Mendez and Stephanie Tiwari
Faculty Mentor: Dr. Ronit Kahana-Kalman
Department: Behavioral Sciences

In this decade an increasing number of college students are balancing work and school. Many other studies have demonstrated that college students who work experience increased demands on their time which leads to work interfering with school, and in turn, increased negative affect and lowered feelings of well-being (Lenaghan, & Sengupta, 2007). Thus, when college students experience role-overload, their feelings of well-being are diminished and they often fail to achieve and maintain their academic goals.

In this study we examine the role of student employment and how it is related to self-reported stress among college students from working-class families of diverse racial and ethnic backgrounds. Whereas the majority of studies to date were conducted with college students from more affluent backgrounds, our study further examines differences in stress and academic achievement between employed and non-employed college students from ethnically diverse working-class socioeconomic backgrounds.

100 students at New York Institute of Technology volunteered to complete the survey for this study. The survey includes two measures of stress. Specifically, a 14-item measure of General Stress (Cohen, Kamarck, & Mermelstein, 1983) and a 20- item measure on the physiological manifestations of stress (http://stress.about.com, scale published online). The survey also includes questions about academic achievement and work-related experiences. Data from this study are currently being analyzed. We hypothesize that students who work more hours will report more stress, lower academic achievement, and more conflict between school and work experiences. Findings from this study will further enhance our understanding of the implications of college student employment.

Emotion Regulation Skills and Strategies Among Mexican, Dominican and African American Toddlers

Student Name: Jacqueline Saleh
Faculty Mentor: Dr. Ronit Kahana-Kalman
Department: Behavioral Sciences

Researchers suggest that pre-schoolers' school readiness is supported by a range of skills that fall under the rubric of "Self Regulation" (Blair, 2002; Raver, 2002). Self-regulation involves modulating systems of emotion, attention and behavior in response to a given situation. It includes managing emotions, shifting or focusing attention, and both inhibiting and activating behavioral responses.

In this study we examined ethnic and gender differences in emotion regulation of Mexican, Dominican, and African American 3-year-old toddlers from low-income families (N= 112; 52 boys; 60 girls). Two delay tasks were administered to assess toddlers' emotion regulation skills and strategies (Smith-Donald, Raver, Hayes, & Richardson, 2007).

We also examined gender and ethnic differences in emotion regulation *strategies* used by toddlers during these tasks. Codes included the following: physical comfort seeking, self-soothing behaviors, distraction, focus on the delay object, and effortful restraint. Our findings represent an initial step in enhancing our understanding of emotion regulation abilities in ethnically diverse groups and also among low-income children who may be at higher risk for behavior problems associated with poor emotion regulation during toddlerhood (Cole et al., 2003).

Immigrants Perceptions of Police in Pasadena County

Student Name: Kevin Cardoza
Faculty Mentor: Dr. Chris Ortiz
Department: Criminal Justice

The purpose of this study is to see if immigrants' perceptions of the police are different then the native born citizen in Pasadena County. The four races I am studying are White, Black, Hispanic, and Asian. The people were contacted by random digit dialing to help make it random and not fixed results. A survey was given to residents of Pasadena, California in 2010 asking about the perceptions of the Police Department in Pasadena. It took about 5 months to comprise all the data and completed surveys. There are 2 groups used to measure how they citizens and immigrants felt about police. I believe that police will be negatively perceived by immigrants because of lack of trust the police will do their job correctly due to past experiences. Race, gender, and age are all believed factors in how citizens feel about police

The Public's Perception of Police Officers After a Voluntary or Involuntary Experience

Student Name: Joseph Vinciguerra
Faculty Mentor: Dr. Christopher Ortiz
Department: Behavioral Sciences

This research that I am going to be conducting for this project digs deeper into the public's view of the police. Not only will I be looking at race and gender but I am going to scrutinize the view of the police after the public's encounter with the police whether it be voluntary or involuntary. In a more narrow sense, a voluntary encounter would be if an individual called the police for whatever reason and what they thought about their response time, their behavior and their level of helpfulness they served. An involuntary experience would be if someone called the police on you or if you were pulled over on the street for a traffic violation or a different more serious crime. The purpose of my study is to compare 2 different groups of people—those who have had voluntary experiences with the police (people who called the police themselves), and those who have had involuntary experiences with the police (people who are stopped by the police for 1 reason or another). Also, incorporated into the research and the survey, a question will be asked as to what race that person is because like I said, race is a huge factor in point of views of the police. With help from the RAND Corporation, which I assisted in doing work with recently, I was given a sample size of 400 people from 2 different departments, 200 people coming from each department. Within the 200 people, 100 of the people had an involuntary experience with the police and the other 100 people had a voluntary experience with the police. The purpose of my study is to really see first-hand if the type of experience and what race/ethnicity a person is really does have an effect on a person's experience.

Session I Presentations
10th Floor
Room 1021 –TV Studio
Moderator: Nicholas Bloom
10:30 am-11:45 am

- "The Efficacy of Medical Marijuana for Pain Relief"
  By: Ahmed Hawash

- "PSA-Suicide"
  By: Nadege Poncet, Arnaud Delastre, Raphael Rivasi and Valerie Bruno

- "Cognitive Development in Children and Effectiveness of the Head Start Program"
  By: Yvonne Boinett

- "The Effect of Multiculturalism and Colorblindedness On Trait Judgments"
  By: Saaba Ahmed, Subrina Mcleod, Theresa Piccolo and Alexandra Falbo

- "The Effect of Incremental and Entity Theories on the Voting Attitude of College Students"
  By: Brigette Kirschmer, Daniel Jackson and Maniver Sandhu

The Efficacy of Medical Marijuana for Pain Relief

Student Name: Ahmed Hawash
Faculty Mentor: Dr. Kevin LaGrandeur
Department: English

In the United States of America, some states have legalized the use of marijuana for medical purposes. It has been said to ease many symptoms for patients with a variety of diseases. The common method of using marijuana is smoking it. And of course, smoking leads to lung cancer, emphysema, and numerous other health issues. The question is whether or not the benefits of smoking marijuana for relieving pain outweigh the potential harmful effects. In many studies, medical marijuana has been shown to relieve pain caused by injury, surgery, etc. In this presentation, I will investigate the effectiveness of the use of medical marijuana for relieving pain. This project will include background information on marijuana's use for medical purposes. After giving the reader an overview of medical marijuana's use, I will begin to focus on its use specifically for relieving pain. I will assess the effectiveness of marijuana for relieving pain by a number of criteria. They include a measure of the pain reduced, and an assessment of the side effects caused by smoking marijuana.

PSA-Suicide

Student Name: Nadege Poncet, Arnaud Delastre, Raphael Rivasi and Valerie Bruno
Faculty Mentor: Youjeong Kim
Department: Communication Arts

This Public Service Announcement (30 second-long video) is intended to spread the message that establishes the importance of addressing the issue of suicide. It will raise awareness that suicide can happen to anyone, yet, the problem is unfortunately a taboo.

Throughout, we encounter two girls, each with their own emotions. One seems to be happy at the beginning of the ad and the other one seems to be really sad and very upset in her life. One is wearing some black clothes and the other one colors. Everything tell us that the girl happy is happy and the sad one is sad. Finally is the happy-looking girl who commit suicide and the other one do not.

Suicide is not about appearance. It can happen to everybody who feel not good inside. It does not mean that the person wear black clothes and never smile. People who seem to be ok in their life can fake it in society. It is a problem we shall talk about and never hide, because it happens too much in our world.

Cognitive Development in Children and Effectiveness of the Head Start Program

Student Name: Yvonne Boinett
Faculty Mentor: Dr. Dan Quigley
Department: English

Psychology covers a wide range of mental observation. Among various stages of development, I am going to choose cognitive development which is Piaget's stages of a child's development. Development in children is broken down mainly into these stages:

Sensory Motor Stage: Age: Birth-2 years. This stage is marked by the baby's ability to understand the world in terms of what he can do with an object. Example: A ball is only how it looks to the person's vision, tastes, and feels to the touch.

Preoperational Stage: Age: 2-6 years. In this stage, the child starts to use images, words and actions that stand for something else. Fantasy or pretend play also starts to appear in this stage as well.

Concrete Operational Stage: Age: 6-12 years. In this stage logic is developed, such as addition, subtraction, multiplication, division, and class inclusion; also inductive and deductive reasoning are developed. Formal operational is experienced from ages 12 plus. The child is able to manipulate events in his head: see things that he never has seen or that have yet to happen and classify and organize ideas.

In my project, I am going to show how head start program stimulates the children and help develop their brains as they continue to grow.

The Effect of Multiculturalism and Colorblindedness on Trait Judgments

Student Name: Saaba Ahmed, Subrina Mcleod, Theresa Piccolo and Alexandra Falbo
Faculty Mentor: Dr. Dina Karafantis
Department: Behavioral Science

Negative affect toward (*prejudice*), associating attributes with (*stereotyping*), and biased treatment toward (*discrimination*) racial groups and their members are pervasive social problems in the U.S. Thus, the implementation of anti-bias interventions is a timely consideration. This is especially true given the increasing diversity of our nation. In the U.S. society, two opposing core beliefs, or lay theories regarding diversity are pervasive: the colorblind theory and the multicultural theory. Past work has shown that people's lay beliefs relate reliably to their beliefs about and attitudes toward members of various social groups, including gay men and lesbians, overweight persons, homeless persons, racial minorities, and women. Accordingly, a challenge for the psychology of intergroup relations is understanding mechanisms linking ideologies to intergroup attitudes and beliefs.

Given that prior work has shown that endorsement of either the multicultural or colorblind ideology may decrease social tolerance towards Asians (Karafantis, Pierre-Louis, & Lewandowski, 2010), the present investigation examined whether trait judgments based on phenotypic features (racially and ethnically diverse eyes) differ among participants induced with either the multicultural or colorblind ideology. We hypothesized that each experimental condition will be more effective than the control condition in facilitating social tolerance. However, given the caveats associated with both theories, we also predict that members of minority groups and women may be more hesitant to endorse the colorblind theory than Whites and males. This is based on the idea that implementation of the colorblind view, which presumably ignores any actual group differences in an attempt to avoid any perception of preferential treatment of one group over another (Dovidio et al., 2001), may threaten race-specific policies and gender specific policies (i.e., affirmative action) which ensure that minority group members and women are treated equally to other group members. We also predict that relative to participants in the colorblind and control conditions, participants in the multicultural condition will report greater levels of stereotyping given that acknowledgement of racial and cultural differences may inadvertently lead people to place individuals into rigid categories based on these differences. Finally, we predict that participants in the colorblind condition will report greater levels of prejudice, stereotyping, and discrimination toward Asians. This is based on the idea that Asian faces may not represent the prototypical face to participants, thus participants in this condition will have a more difficult time ignoring, or minimizing the racial/ethnic differences with concern to Asians.

The Effect of Incremental and Entity Theories on the Voting Attitude of College Students

Student Name: Brigette Kirschmer, Daniel Jackson and Maniver Sandhu
Faculty Mentor: Dr. Dina Karafantis
Department: Behavioral Sciences

Research on lay theories has roots in social and developmental psychology. Researches for example have examined lay theories relating to the malleability of human nature. They have shown that children holding malleable ("incremental") views of human attributes are less quick to judge and are more flexible in their evaluations of others than children holding a fixed ("entity") view (Levy, Stroessner, and Dweck, 1998). Research also found that college students holding more malleable views agreed less with societal stereotypes of ethnic groups (e.g. African Americans, Latinos). Therefore, the present study assessed whether college students' lay theories about the malleability of traits relate to their attitude toward and their willingness to vote for a minority group member. We hypothesize that people holding a more malleable view will have more positive inclinations toward voting for a minority group member and will demonstrate more prosocial attitudes than those holding a fixed view of human attributes.

Session I Presentations
7th Floor
Room 721
Moderator: Niharika Nath
10:30 am-11:45 am

- "Epidemiology of Injuries in the Elite Female High School Lacrosse Player"
  By: Michelle Dong, Lauren Engel, Lauren O'Boyle, Andrea Pasquarella, David Serkes, Kathryn Smith, Lauren Stoebe and Danielle Valle

- "Effects of Upper Extremity Exercises on Handwriting Legibility and Speed"
  By: Amelia Singh, Frances E. Omaga and Darshana Patel

- "Zebrafish: A Model System for Characterizing the Actions of Anesthetics"
  By: Goretti Chiang and Jaskiran Ghuman

- "Correlations between Different Human Genes Based Upon Similarities in Alternative DNA Structures"
  By: Kayvan Dastgheib-Beheshti, Sahil Kohli, Anthony Pasquarella and Shabia Rehmat

- "Dissection of Bovine Eye Globe for the Isolation of DNA from the Normal Crystalline Lens"
  By: Guram Abaishvili, Nina Bhagat, Justine Chen, Samuel Franck Nde Tene, Natashia Hamilton, Dominic Kalathivila, Sherin Koshy, Priya Nanda, Sarah Syed and Constance Sorisi

Epidemiology of Injuries in the Elite Female High School Lacrosse Player

Student Name: Michelle Dong, Lauren Engel, Lauren O'Boyle, Andrea Pasquarella, David Serkes, Kathryn Smith, Lauren Stoebe and Danielle Valle
Faculty Mentor: Karen Friel and Cheryl Hall
Department: Physical Therapy

Context:
High school lacrosse has grown in popularity, with few resources available describing the incidence and mechanism of injury for this population.

Objective:
Investigate the epidemiology of elite female high school lacrosse injuries, and compare them to those in the collegiate player. The results can help to increase the knowledge of, and contributing factors to, lacrosse injuries and support further investigation for prevention.

Study Design:
Descriptive epidemiology study using a survey design

Setting:
Surveys, consisting of 41 questions, were distributed at practice sessions and tournaments.

Participants:
Surveys were distributed to 522 female elite high school lacrosse players. 22 were excluded for incomplete information.

Data Collection and Analysis:
Survey results were entered into SPSS 16. Means and correlations were calculated.

Results:
Majority of athletes (91.6%) played an additional sport. Weather was not a factor with 85% of injuries occurring on clear days. 59% reported experiencing an injury while playing lacrosse with the most common being to the ankle and knee. The injuries occurred more often earlier in the season, with the majority occurring during in-season practice. Game injuries occurred more during single game competition (70%) settings and 53% were unable to return to play that day. Although the majority of injuries did not require surgery (5.7%), most required 10 or more days of no sport participation (42.1%). Majority of injured athletes had been taught interventions (71.6%) and practiced preventative drills and warm-ups (70%).

Conclusion:
Overall injury rates are high for elite lacrosse which is classified as a noncontact sport, and are comparable to those seen in the collegiate female lacrosse player. This study can help to develop prevention programs targeted to the specific injuries experienced during high school lacrosse.

Effects of Upper Extremity Exercises on Handwriting Legibility and Speed

Student Name: Amelia Singh, Frances E. Omaga and Darshana Patel
Faculty Mentor: Tricia Nicholes
Department: Occupational Therapy

Handwriting is an essential task incorporated into lives of children and adults. Handwriting is one of the most primitive forms of communication utilized in many aspects of daily life including home, work, and school as a means of self-expression. According to recent research, the control of distal muscles can be improved with strengthening of proximal muscles. This is known as the proximal-distal principle. Handwriting requires the application of the proximal-distal principle, which affirms that proficient use of the proximal muscles provides a basis for greater manipulative control of the distal musculature (Naider-Steinhart, S. & Katz-Leurer, M., 2007).

This study was conducted on a voluntary basis, at the New York Institute of Technology (NYIT) School of Health Professions, with study participants being health professional students who feel that their handwriting is illegible and/or slow. The participants performed a specific exercise regimen in order to determine whether strengthening the upper extremity muscles had an effect on the legibility and rate of handwriting. The Handwriting Assessment Battery for Adults (Faddy, 2008) was used as a pre and post-test to assess the legibility and rate of writing.

The researchers hypothesized that the use of this specific exercise regimen will strengthen upper extremity muscles, inclusive of the hand, resulting in an increase in rate and improvement of handwriting legibility. Positive results in handwriting legibility and speed were seen in those students who adhered to the given exercise regimen and guidelines of the study.

Zebrafish: A Model System for Characterizing the Actions of Anesthetics

Student Name : Goretti Chiang and Jaskiran Ghuman
Faculty Mentor: German Torres, Joerg R. Leheste and Brian H. Hallas
Department: Neuroscience/Histology

Understanding the neural mechanisms of anesthetics is extremely challenging given the complexity of the human brain, the diversity of cellular targets affected by anesthesia, and the lack of understanding of how anesthetics work. How anesthetic drugs induce and maintain the behavioral states of general anesthesia is therefore an important question in medicine and neuroscience. Anesthesia is a drug-induced, reversible state of consciousness that also affects the subjective states of amnesia, analgesia and akinesia. Understanding the neurobiology of these behavioral traits would benefit greatly from improved animal models of anesthesia. Here, we propose to use the freshwater vertebrate zebrafish (*Danio rerio*) for studying the neural networks that mediate the actions of general anesthetics and for identifying specific candidate genes that underlie the basis of anesthetics-induced behaviors. The zebrafish offers unrivaled opportunities for this line of investigation, primarily because of its amenability to high throughput in vivo drug screening. This feature, together with a well-characterized stereotypical neuromuscular system and genetic tractability offers a quick, easy, and cost-effective way for studying anesthetics in a vertebrate organism. Thus, the present study describes a series of experiments in which acute sub-anesthetic doses of ketamine and propofol were used to analyze species-specific behaviors and to identify behaviorally relevant molecular substrates for ketamine and propofol in the adult zebrafish. Our results provide to the best of our knowledge, the first direct evidence that pharmacological inhibition of NMDA receptor function in the zebrafish has a profound effect on spontaneous behavioral activity and cellular REDOX mechanisms related to oxygen availability and subsequent breathing behavior. This raises the prospect that a zebrafish assay model provides an adequate experimental tool in which neurochemical dysfunction of either catecholamine (e.g., dopamine) or glutamate systems can properly be studied. This vertebrate model-system has already told us much about other physiological processes, such as development and immunity. Now, the zebrafish can be used as a model of anesthesia, especially for testing and developing anesthetics drugs that modulate new types of cellular targets.

Correlations between Different Human Genes Based Upon Similarities in Alternative DNA Structures

Student Name: Kayvan Dastgheib-Beheshti, Sahil Kohli, Anthony Pasquarella and Shabia Rehmat
Faculty Mentor: Dr. Claude E. Gagna
Department: Life Sciences

Molecular biology, genomics, proteomics are disciplines which are becoming more important, not only to research scientists but also to physicians. Bioinformatics is a tool used by researchers to examine genes, DNA sequences, proteins, and the interactions between different biological molecules. DNA and RNA are not static one-dimensional molecules. They have the ability to adopt alternative (exotic) structures, mainly, left-handed double-stranded Z–DNA. Z-DNA has been implicated in many different biological roles, such as genetic recombinations, transcription, and RNA editing. Our group wanted to identify the presence of left-handed double-stranded Z-DNA within a general population of human genes. The purpose of our research project was to initiate a pilot study in which we would try to identify any correlations between "gene functions" and "the potential for the development of Z-DNA" in genes that contain mainly double-stranded B-DNA. It is our goal to set the foundation for other students to continue this project and examine more genes in the future. Another one of our goals is to identify novel target sites (Z-DNA segments) so that perhaps one day they could be targeted with new classes of drugs to either inhibit or enhance their gene functions. Based upon our data we discovered that certain genes have the potential for Z-DNA while others do not. Additionally, we also found that different genes have different numbers of potential Z-DNA sequences within them. This range of potential Z-DNA sequences goes from 1-125. Correlations were found in similar number of Z-DNA sites showing attributes but are not limited to blood, metabolism, neurotransmitters, adipose tissue/adipocytes, growth factors and genes involved in movement within structural proteins of the extracellular matrix.

Dissection of Bovine Eye Globe for the Isolation of DNA from the Normal Crystalline Lens

Student Name: Guram Abaishvili, Nina Bhagat, Justine Chen, Samuel Franck Nde Tene, Natashia Hamilton, Dominic Kalathivila, Sherin Koshy, Priya Nanda, Sarah Syed and Constance Sorisi

Faculty Mentor: Dr. Claude E. Gagna

Department: Life Sciences

As part of the Biomedical Research II group, we worked closely together to obtain intact, undamaged, non-cataractous ocular lenses from the adult bovine eye globe. We then observed the ocular lens to see that it contained any cataract elements. Then, we allowed the eye globes to dehydrate at room temperature for several weeks. Additionally, we isolated the cornea and the optic nerve in order to save valuable tissue for future research projects. This experiment allowed us to hone dissection skills that would be helpful in medical school for human gross anatomy. Working with the eye globe is particularly difficult and therefore an excellent tissue to develop general dissecting skills. The ocular lens will eventually be ground up and turned into a course powder so that we can test the use of a novel fixative for the preservation (secondary fixation) of intact, unaltered, non-deteriorated DNA-protein complexes. The novel stabilizing solution will allow for superior preservation of *in vivo* DNA-protein complex interactions that regulate gene expression. This novel stabilizing solution will result in preservation of high quality DNA, DNA-binding protein and the natural *in vivo* interactions that regulate normal gene expression. We will avoid pulverizing the tissue with a high speed grinder in order to reduce damage to the biological molecules of interest (e.g., increased temperature). Most archival paraffin-based tissues have been fixed in formaldehyde. This study will help address the issues of isolating DNA-protein complexes initially processed in 10% formaldehyde. Understanding the relationship between biological molecules and chemicals used to preserve their overall native structure is very important in terms of biomedical research and drug discovery and development.

Session I Presentations
10th Floor
Room 1026
Moderator: Jacqueline Taylor Basker
10:30 am-11:45 am

- "The Digital Homogenization of Film and Television Production"
  By: Douglas Guerra

- "The Revamping of NYIT Manhattan's Student Activities Advertising Campaign"
  By: Elizabeth Hutzler

- "An Online Tweets/Microblogs Collection and Analysis Tool"
  By: Hao Liu, Hua Fang, Kai Chen and Hong Chen

- "Framing Design"
  By: Ashley Foster

- "Another Day Running"
  By: Victoria Reyes

The Digital Homogenization of Film and Television Production

Student Name: Douglas Guerra
Faculty Mentor: Jim Fauvell
Department: Communication Arts

The production of both film and television can now be considered to be unified under the banner of "digital video". More than ever, techniques and workflow from both paradigms are related thanks to the accessibility and affordability of digital technology. Production values have increased, and costs have dropped, in a phenomenon that many have labeled the "democratization" of video. With digital technologies – specifically the computer – there have been a number of changes in both the business and creative aspects of television. The scope of a "professional" in the industry has also changed, in accordance with the idea that it is impossible to know everything in the digital age. It has now been about twenty years since the internet was introduced to society, and it has of no coincidence been about the same time since digital technology was introduced to film production; it has radically altered the way movies are made in the following ways:

I. The production techniques behind both film and television have become homogenized, and the distinctions between the two mediums will continue to blur.
II. The skills required to succeed in the industry have become accessible to nearly everyone, making the career paths of future film and television workers a much less specific than in the past.

The Revamping of NYIT Manhattan's Student Activities Advertising Campaign

Student Name: Elizabeth Hutzler
Faculty Mentor: Dr. Dena Winokur
Department: Communication Arts

As an involved student of the NYIT Manhattan Campus I will be focusing my research project on the Student Leaders here at the NYIT Manhattan Campus. I will analyze the current NYIT Orientation packet for Student Activities in which I will then create a new advertising campaign that NYIT could possibly use for orientations throughout the summer and for admission preview days. The new advertising campaign will feature real student leaders from the NYIT Manhattan Campus and their experiences here and their story of why they got involved. A survey of one hundred students has already been completed in efforts to have this research project be as real as it possibly can. The photographs and the video will be taken by Student Leaders as well to showcase the talents that NYIT Manhattan has. All advertisements, brochures and the lay out of the videos will be handled by myself.

An Online Tweets/Microblogs Collection and Analysis Tool

Student Name: Hao Liu, Hua Fang, Kai Chen and Hong Chen
Faculty Mentor: Dr. Ziqian Dong
Department: Electrical and Computer Engineering

Microblogging today has become a very popular communication tool among Internet users. Millions of users share opinions on different aspects of their everyday life. Twitter, the most popular microblogging platform, is a rich source of data for opinion mining and sentiment analysis. There have been some research works that were devoted to this topic using Twitter, however few of them has explored China's microblogging field—Sina MicroBlog, also known as Weibo. In our project, we focus on developing a tool that automatically collects the public "tweets" from Weibo and employs the data processing techniques from Hadoop Platform (a leading large-scale data processing platform that enables parallel processing over commodity computers in local networks) to perform linguistic analysis of the collected data (Chinese characters) and try to explain discovered phenomena in a general sense. By analyzing the collected data, we hope to statistically reflect social behaviors towards some specific topic within a given period of time and summarize the trends of social response briefly by giving out the statistic table of data analysis (such as tweets-bonded user information or user-bonded tweets statistics) with respect to timeline. This tool can be used to assist in social behavior and psychological study using real online social network data with multi-language support. In our project, we applied our techniques on Chinese postings with GBK and UTF-8 encodings. However, the proposed techniques can be applied to analyzing online posts in other languages.

Framing Design

Student Name: Ashley Foster
Faculty Mentor: Terry Nauheim Goodman
Department: Fine Arts

Historically, the great graphic designers have used paper to create magazine covers; posters, etc. Today's digital tools offer graphic designers the possibility to create works that go beyond paper.

For example, elements such as motion and time allow a designer to interact with elements on a time-based scale that which is not offered by print media. Using Adobe After Effects, my knowledge of design, I will create a 3-5 minute narrative to depict a story that I wrote about a little girl trying to sell t-shirts in the city. My digital story will include including audio and digital elements, and captured by digital video.

Through using a wide variety of media, composited elements, and image and sound arrangements, I will enhance narrative aspects to the story. As a graphic designer, I will use my design skills to make my project as artistic as possible while communicating to intended audience.

Another Day Running

Student Name: Victoria Reyes
Faculty Mentor: Terry Nauheim Goodman
Department: Fine Arts

My 3-5 minute film is based upon the new album of My Chemical Romance; Danger Days: The True Lives of Fabulous Killjoys. Two killjoys are running away from BL/ind (Better Living Industries), a company in which took charge after the nuclear war. The two killjoys are the sole survivors of their 'Maximum Draculoid' Program which makes their Draculoids or Dracs better fighters. To avoid helping BL/ind with set experiments, they decide to run and hide in the zones - the areas outside of Battery city, where BL/ind established its headquarters.

My project is a digital narrative told through sound and image. I will be using Adobe Photoshop, Adobe Premiere and Adobe After Effects to produce this project.

Session II Presentations
10th Floor
Room 1029
Moderator: Niharika Nath
1:15 pm-2:30 pm

- "The Usage of Numbers As Literary Devices"
  By: Charlotte Chen

- "Life. Live it. Give it."
  By: Neetu Krishnan, Bareia Chaudhry and Anahita Ahuja

- "Poetry of the Heart"
  By: Bijon Miles

- "The Over Rated Journey of the American Dream"
  By: Terrence A. Beach, Mariam Torou, Tanner Stocum and Ivan Ortiz

- "Happiness and Success"
  By: Maciek Serafin

The Usage of Numbers as Literary Devices

Student Name: Charlotte Chen
Faculty Mentor: Thomas Jacobs
Department: English

Many authors use literary devices to enrich their work such as colors, dictions and hyperbole and etc. Is it possible that numbers in literary text can be used in the same way? Using books and journal articles as a guide, the usage of numbers as literary device is explored in short stories and novel such as Hills *like White Elephant* by Ernest Hemingway, *Library of Babel* by Jorge Luis Borge and *Motherless Brooklyn* by Jonathan Lethem.

In these works, numbers can be used to foreshadow events, to build character and to establish settings. It is not strange to find symbolic numbers in text as Dean Schlicter once put it, “Go down deep enough into anything and you will find mathematics.”

Life. Live it. Give it.

Student Name: Neetu Krishnan, Bareia Chaudhry and Anahita Ahuja
Faculty Mentor: Professor Jacobs
Department: English

One organ donor can save up to eight lives, yet 17 people die each day waiting for an organ transplant. These numbers are steadily increasing due to the lack of organ donors. This bridge continues to expand due to the ignorance surrounding organ donation and the myths that often accompany it. In order to show the importance of organ donation at a personal level, a video was created depicting different perspectives of lives affected by organ donation. There are three viewpoints shown in the video. The first two are first hand experiences from a donor's father, and then from a son whose father received an organ transplant. These two perspectives deepen the understanding of organ donation and what those involved go through. Finally, the third perspective, which concludes the video, is of students on the subject of organ donation. These were based on a survey of friends and peers, all of whom agreed to be interviewed for this project. The video does not only focus on informing the audience of organ donation and its many benefits, but also gives the audience a reason to close the bridge.

Poetry of the Heart

Student Name : Bijon Miles
Faculty Mentor: Lyubov Nakonechna
Department: Communication Arts

My presentation will be two poems. My first poem is about man who is seen as brilliant, popular, wise etc… but reflects on the actions of this man which makes him wise. This poem will help the reader to understand that faith and love is essential to having a good life. Also the poem helps the reader to see beyond the physical and look deeper on life and their actions.

My second poem is about Love. It shows the desires of searching for love and certain expectations but not getting the desire the person wants. Feelings of emotion hurt the person as they haven't found the love they wanted. The poem allows you to realize that you should be patient for love. Love will come in time.

The Over Rated Journey of the American Dream

Student Name: Terrence A. Beach, Mariam Torou, Tanner Stocum and Ivan Ortiz
Faculty Mentor: Jennifer Griffiths and Youjeong Kim
Department: Communication Arts

My video presentation is based on my research for the class of "Fundamentals of Research Writing". I will present segments from a documentary about individuals' perception of the new American dream. It is based on a study that examined the effects of evolution of technology on the individuals' personality change in terms of needs vs. wants. In today's economy, it is difficult to maintain a luxury style of expensive iPods, updating phones and Mac books. Therefore, my project aims to take a closer look into individuals' experience, and their perception of the American dream, and haw it may have changed.

Happiness and Success

Student Name: Maciek Serafin
Faculty Mentor: Jim Fauvell
Department: Communication Arts

I will write a paper regarding my future after college, and how happiness can cause success, which can be relevant to most students. Here is my thesis; an analysis of the Success in Western culture reveals that for the majority of us, happiness comes in the form of what we call success; by achieving certain 'things' that we believe will make us happy. Instead of following the money, most happy people concentrate on something that they have passion for, and something that can bring positive change. Being happy, and passionate with what you're doing, and not doing it for money, will lead you to become successful and fulfilled at your job.

The paper that follows should explain the analysis of what people feel best about in life's accomplishments and explain the problems you face in modern society in trying to reach these goals.

Session II Presentations
10th Floor
Room 1021-TV Studio
Moderator: Terry Nauheim Goodman
1:15 pm-2:30 pm

- "I Am Beautiful PSA"
  By: Jonathan Dipierro, Ellie Mayerhoff, Kate Hickey, Ryan Jones, Ravali Munipalle and Shanni Scherer

- "Homosexuality Acceptance: 'Think Before You Speak'"
  By: Mounia Arraki, Julia Abecassis, Pierre-Jean Riccini and Elodie Usai

- "Works by Linkin Park and Sophocles Regarding Low Self-Esteem"
  By: Cindy Cobo

- "A Qualitative Examination of the Beneficial Effects of Exercise on Individuals Recovering From Substance Abuse Addiction"
  By: Nina Cesare, Toyia Roberts and Stephanie Serieux

- "PSA-Domestic Violence"
  By: Frank Bosi, Marine Barbato, Olivia Roure, Delphine Chrysanthos and Marion Garcia

I Am Beautiful PSA

Student Name: Jonathan Dipierro, Ellie Mayerhoff, Kate Hickey, Ryan Jones, Ravali Munipalle and Shanni Scherer
Faculty Mentor: Youjeong Kim
Department: Communication Arts

An average girl walks up the runway, and as she walks you cannot see her face. She is wearing her street clothes, something cool and stylish. She is holding in front of her face a picture of an actress of model who is far too thin (size 00, ones with their ribs sticking out). She says a statistic about young girls and body image. She then rips the picture of the celebrity/model, showing her face, then turns and walks away. This repeats with two other girls.

At the end, all three say in unison, “I am beautiful.” Fade to black. More statistics appear on screen, then the final message: “You are beautiful.”

Homosexuality Acceptance "Think Before You Speak"

Student Name: Mounia Arraki, Julia Abecassis, Pierre-Jean Riccini and Elodie Usai
Faculty Mentor: Youjeong Kim
Department: Communication Arts

This 30-second long PSA is to show the audience the impact of homophobic words or attitudes on young homosexual people. The program is intended to make the audience understand that homosexual people can suffer very much from the insults or teasings that they hear every day and that those teasings can have dramatic consequences on their lives. This Public Service Announcement is aimed to make people think about the consequences of their insults or teasings on the lives of the people to who they tell them.

It shows one young gay guy being harassed by other young people of his age because of he's homosexual. This project reflects a social reality that we, as a group, tried to make more impactful.

Works by Linkin Park and Sophocles Regarding Low Self-Esteem

Student Name: Cindy Cobo
Faculty Mentor: Anthony DiMatteo
Department: English

This essay will discuss the problem of low self-esteem that surrounds people at one point, especially among adolescents. The works of Linkin Park and Sophocles were written in vastly different times, but share a similar event in which a person suffers from what other people have done. Also, along with works by these two artists, the essay will discuss examples of how people act when they are struggling with this conflict. Low self-esteem is an issue that can impact every person. It is important to know about it because it is useful to help other people who are going through the situation.

A Qualitative Examination of the Beneficial Effects of Exercise on Individuals Recovering from Substance Abuse Addiction

Student Name: Nina Cesare, Toyia Roberts and Stephanie Serieux
Faculty Mentor: Pat Precin
Department: Occupational Therapy

This cross-sectional qualitative study examined the effects of physical exercise on individuals recovering from substance abuse addictions in order to inform intervention. This study was driven by the Occupational Therapy Model of Human Occupation and Cognitive Behavioral Theory. Twenty-six male and/or female subjects within the age range of 18 to 65 who were currently in the process of recovering from substance abuse addiction participated in an anonymous online survey at Surveymonkey.com in order to further explore the role of exercise in individuals recovering from substance addiction. Results showed that individuals who participated in exercise activities during their recovery experienced an increase in mental and emotional well-being, a decrease in cravings, and enhanced social networks. In addition, participants reported a decrease in triggers and symptoms associated with substance addiction. Exercise appeared to enhance healthy lifestyles, longer periods of recovery, and quality of life when incorporated in the substance abuse recovery process. Occupational therapists may use exercise as an adjunct or alternative treatment for substance abuse. They may educate individuals on the benefits of exercise, how to use exercise to decrease cravings and triggers, and to establish routines in order to increase overall occupational performance. This study's findings supported previous research studies concerning the beneficial effects of exercise on substance abuse. However, more quantitative studies are needed to determine the amount and intensity of exercise required to produce beneficial effects and understand the exact role that exercise plays in the recovery of substance abuse addiction.

PSA-Domestic Violence

Student Name: Frank Bosi, Marine Barbato, Olivia Roure, Delphine Chrysanthos and Marion Garcia
Faculty Mentor: Youjeong Kim
Department: Communication Arts

This Public Service Announcement is intended to spread the message that establishes the importance of addressing the issue of Domestic Violence. It will raise awareness that Domestic Violence can happen to anyone, yet, the problem is unfortunately overlooked, excused and constantly denied.

Throughout, we encounter four women, each with their own story, whom are all accustomed to living in violence and fear. They are all of diverse ethical backgrounds, status, educational levels and ages, which are unified and brought together by their attire; jeans and a white t-shirt. The only thing causing them to be different is the severity of their bruises, otherwise, they are all portrayed as a victim of domestic violence.

As excuses are common in abusive relationships, they are continuously recognized when all four victims state the four most common of the excuses. Each excuse is then followed by an alarming statistic, which emphasizes the gravity of the victim's constant struggle with the issue of domestic violence.

Session II Presentations
7th Floor
Room 721
Moderator: Ana Petrovic
1:15 pm-2:30 pm

- "Electromagnetism as a By-Product of Moving Vectors in an Oscillating and Commutative Subspace-Time Field"
  By: Ikoro Nduka Ikoro

- "Thermochemical Storage of Intermittent Renewable Energy Sources Using the Reversible Hydration/Dehydration of Calcium Oxide/Calcium Hydroxide"
  By: Jason Philip Samuel

- "Smart Wind Turbines"
  By: Maulik P. Joshi

- "Sustainability of the U.S. Transport System Through the Use of Algae Biodiesel"
  By: Kenneth Martin

- "Protein Kinase C-2 Substrates and Pathways"
  By: Shanacy Marler, Karan Lal, James Solomon, Chanakya Bavishi and Madiha Yasin

Electromagnetism as a By-Product of Moving Vectors in an Oscillating and Commutative Subspace-Time Field

Student Name: Ikoro Nduka Ikoro
Faculty Mentor: Dr. Laihan Lou
Department: Mathematics

In the 19th century, after the discovery of Electricity and Magnetism, attempts were made by physicist and mathematicians to see if there was a relationship between these two fields. A physicist/ mathematician, James Clarke Maxwell, stumbled upon an experimental phenomenon. He discovered that whenever he placed a compass close to a moving current (alternating current), it moved. This intrigued him because it meant that electricity and magnetism were related at least experimentally. Using his mathematical skills, he coined a set of equations to explain the phenomenon. This set of equations is called the Maxwell's solution:

$$\nabla \cdot B = 0\,,\ \nabla \times B = \mu_0 J + \frac{1}{C^2}\frac{\partial E}{\partial t}$$

$$\nabla \cdot E = \frac{\rho}{\varepsilon_0}\,,\ \nabla \times E = -\frac{\partial B}{\partial t}$$

This paper tries to derive all of Maxwell's solution by introducing a new postulate. The postulate says; the electromagnetic field is as a result of a vector (photon) moving in an oscillating subspace field. The theory bases on the assumption that the spin of the oscillating subspace field is 1, which is where the photon gets its properties from. In order to visualize, take a string tied from one end of a room to the other to be a subspace field of the 4-vector space. Now, imagine the string to be oscillating with a spin 1 property. A particle with the same spin would undergo resonance. Just like a glass cup breaks when it reaches resonance with a certain sound frequency, so would a particle reach resonance with a string having the same spin frequency. Resonance leads to exchange of energy and energy affects momentum, so it is plausible that the property of a photon comes from the subspace field.

Thermochemical Storage of Intermittent Renewable Energy Sources Using the Reversible Hydration/Dehydration of Calcium Oxide/ Calcium Hydroxide

Student Name: Jason Philip Samuel
Faculty Mentor: Frank Zeman
Department: Engineering & Computer Science

As more and more nations transition from a power grid that is heavily reliant on oil, coal, natural gas and other fossil fuels, to a "clean energy" grid, with significant Renewable Energy components such as wind and solar, the challenge of grid integration of these diverse resources becomes more pronounced. The intermittent nature of renewable sources of energy compromises power quality and reliability. Power produced by intermittent sources is often wasted during off-peak periods, and moreover during peak periods, such systems are unable to cope with the increase in demand. A proposed solution therefore, is to resort to an intermediate storage level, where the power output from these resources can be pooled into, and drawn when required. This project will attempt to provide such an intermediate storage solution, by the means of storage of electrical energy in reversible exothermic/endothermic chemical reactions, particularly, the Calcium Oxide/Calcium Hydroxide system. This specific system was identified because of several advantages when compared to other similar reaction systems including: high power storage density, minimal thermal losses during storage, high thermal stability within the operating range, low cost of raw material, low toxicity of all reaction products, ease of handling and possible utilization of high temperature heat for industrial purposes. The entire system can also be contained within a closed loop, while employing sealed reactors. Thus escape of gases from reaction by-products as well as reaction contamination from the external environment can be minimized.

Smart Wind Turbines

Student Name: Maulik P. Joshi
Faculty Mentor: Dr. Robert Amundsen
Department: Energy Management

The wind turbine industry is going to grow enormously in the next decade due to a global focus on renewable energy and climate change. Current research is mainly focused on increasing the efficiency of available renewable sources. Many utilities in the United States will be required to have 20 percent of electricity come from renewable sources by 2020. Up to 5 percent can actually come from efficiency improvements. New high-tech research will integrate "laser providence" and "smart blades" into the turbines, allowing them to operate better and last longer.

This new laser technology means that wind turbines are able to "see" the wind, before it hits the blades. By “predicting” the wind, the wind turbine can optimize its position and adjust the blades so that the wind is used more efficiently, and the wind turbine lives longer. The increase in electricity production is remarkable. It is expected that the technology can increase energy production by up to 10%. Therefore, this technology will help reduce CO2 emissions, by increasing wind energy production, and by making power from wind energy more economically competitive.

Sustainability of the U.S. Transport System Through the Use of Algae Biodiesel

Student Name: Kenneth Martin
Faculty Mentor: Dr. Robert Amundsen
Department: Energy Management

Global consumption of energy is rising and by 2030 is predicted to reach a consumption level of 739 quadrillion Btu's per year. This growth and the reality that fossil fuel is a non-renewable and limited energy source, makes it unsustainable for the future. The U.S. currently imports approximately two-thirds of its petroleum. As worldwide demand increases, supply becomes a growing concern. Additionally, the combustion of fossil fuel is a major contributor to greenhouse gas emissions. As a result of the non-sustainable future of fossil fuel governments, universities, and corporations worldwide are conducting research in an effort to find renewable sources of energy.

In the U.S., ethanol derived from corn and biodiesel derived from soybeans have large support from farmers, big corporations with farming interests, lobbyists, and politicians. Many Americans believe that these home grown biofuel can replace gasoline and diesel fuel. From the outside this looks good for America, but further investigation shows that these terrestrial plants cannot supply the amount of biofuel needed to power the U.S. transport system.

In response to the oil crisis of the 1970's, the U.S. Department of Energy's Office of Fuels Development, funded a program to develop renewable transportation fuels from algae. This program, known as the Aquatic Species Program ("ASP"), operated from 1978 to 1996 under the auspices of the National Renewable Energy Laboratories ("NREL"). The main focus of the program was the production of biodiesel from high lipid-content algae grown in ponds, utilizing waste CO_2 from coal fired power plants. This research became the foundation of all subsequent work conducted in this area.

This thesis asks the question: can algae biodiesel play a key role in the sustainability of the U.S. transport system? This presentation looks at the benefits of algae-derived biodiesel, algae, and how algae are cultivated, harvested, and converted to biodiesel. The conclusion of this research shows that algae can help to sustain the U.S. transport system and provide a true home-grown source of energy.

Protein Kinase C-2 Substrates and Pathways

Student Name: Shanacy Marler, Karan Lal, James Solomon, Chanakya Bavishi and Madiha Yasin
Faculty Mentor: Marianne Land
Department: Life Sciences

Protein Kinase C's (PKC's) phosphorylate specific serine/threonine amino acids on their substrates to regulate many biological processes, which include growth, secretion, differentiation, and neuron function. In mammals there are four isoforms of classical PKC's (cPKC's) that are encoded by three different genes. However, the specific functions, substrates, and upstream regulatory molecules of these isoforms are not yet fully understood. Identification of PKC substrates may identify drug targets and lead to the development of new treatments for human diseases in which PKC is mis-regulated, such as Parkinson's, cancer, Alzheimer's disease. Most signal transduction pathways and genes that are found in mammals are present in the free living nematode worm, *Caenorhabditis elegans.* One gene (*pkc-2)* in *C.elegans* encodes all diacylglycerol (DAG) and calcium (Ca^{2+}) activated cPKCs. Thus a gene knockout will eliminate all cPKC isoforms in this worm. The objective of our research is to identify PKC-2 substrates using biochemical and genetic analysis in *C.elegans*.

Previously, our group identified PRDX-2 and TAX-4 as PKC-2 targets. *In vitro* these targets have been found to be phosphorylated to high stoichiometry in a DAG and Ca^{2+}dependant manner (M. Land unpublished observations). *PRDX-2* is a 2-Cys peroxiredoxin. 2-Cys PRDX's detoxify reactive oxygen species, regulate peroxide generated by cellular metabolism of oxygen, and stimulate a number of growth factors and cytokines. TAX-4 is a subunit of a cyclic GMP regulated Ca^{2+} channel, which is highly related to the α subunits of the cyclic nucleotide-gated channel used in vertebrate vision and olfaction.

We have performed mutagenesis to convert a specific threonine amino acid to alanine within the C terminus of PRDX-2 and thus create a non-phosphorylatable substrate. In addition, we have cloned portions of the C terminus of TAX-4 to identify specific serine/threonine amino acids that are targets of PKC. The mutant PRDX-2 and TAX-4 fragments have been expressed as GST or Histidine-fusion proteins in *E.coli*, purified and will be tested as *in vitro* PKC substrates to identify specific PKC-2 phosphorylation sites.

Transgenic worms will then be generated, that express TAX-4 or PRDX-2 phospho-mimetic or non-phosphorylatable mutants, *in vivo.* This will reveal their physiological relevance and their ability to rescue mutant phenotypes of PRDX-2 and TAX-4 null animals.

Session II Presentations
7th Floor
Room 722
Moderator: Karen Friel
1:15 pm-2:30 pm

- "Carleton Group-Long Island Volunteer Center"
  By: Jennifer Caruso, Thulani Nagazimbi, Raisa Chen and Zilong Jiao

- "HIVision"
  By: Melis Akalin, Mannish Taneja, Antonio Lumley, Stephany Bonnard, and Colton Sheehan

- "The 6MWT: Do Different Methods of Administration Affect Performance Between Healthy Older Adults and Young Adults?"
  By: Shaina Flanzraich, Carmen Navarrete, Shweta Shah and Aida Naguib

- "Healthcare Crisis and Role of Managed Healthcare"
  By: Ruchiben Patel

- "Baby Care System"
  By: Qianqian Liang, Yingjia Li, Yixiao Xu and Xiang Ji

Carleton Group- Long Island Volunteer Center

Student Name: Jennifer Caruso, Thulani Nagazimbi, Raisa Chen and Zilong Jiao
Faculty Mentor: John Hanc
Department: Communication Arts

The Carleton Group, a student run advertising/PR agency offered within the advertising program at NYIT allows students to receive hands on experience with local not-for-profit organizations on Long Island. The Carleton Group is a perfect course to be featured in SOURCE 2011. Showing the work that is produced for the clients throughout the semester, and the work that is potentially used for the organizations once the semester is finished is worthwhile for the students involved.

This semester our group has the privilege of providing The Long Island Volunteer Center with ways to enhance their organization. Different techniques have been used including design with Adobe Photoshop, writing, social networking and video editing. Through group efforts we have created a new logo for the organization, new copy for their about us, an annual newsletter of volunteer opportunities for interested volunteers on Long Island, various social networking opportunities for the organization, and a video showcasing LIVC's annual Volunteer Inductee Ceremony.

For SOURCE 2011 our work will be showcased through a PowerPoint presentation. We will show examples of everything that has been produced for The Long Island Volunteer Center thus far throughout the semester, and discuss the predicted outcomes and the improvements that were made for the organization itself.

We look forward to sharing our work that has been produced and our experiences working within The Carleton Group at NYIT. We also wish to share our experiences working in a client based setting that prepares us for a real world industry setting.

HIVision

Student Name:	Melis Akalin, Mannish Taneja, Antonio Lumley, Stephany Bonnard, and Colton Sheehan
Faculty Mentor:	Youjeong Kim
Department:	Communication Arts

This program is intended to inform the audience about HIV/AIDS in people that do not know they have the disease. It will be a hard-sell approach; giving pure statistics based on 2008 CDC data of known diagnosed cases of AIDS in the U.S. We will represent these statistics using pathos to get the viewer to think about a past experience. The intended audience is high school and college students, mainly the type of kids who tend to party all the time (aka our current generation) and get into debauchery for the night. The advertisement peaks the viewer's interest by using pure body language as a way to portray intense emotion in a nerve-wracking situation. The viewer can immediately associate a personal experience to the powerful emotions shown on the main character's face of fear, anxiety, and eventually, relief.

The 6MWT: Do Different Methods of Administration Affect Performance Between Healthy Older Adults and Young Adults?

Student Name: Shaina Flanzraich, Carmen Navarrete, Shweta Shah and Aida Naguib
Faculty Mentor: Dr. Robert Amundsen
Department: Energy Management

The 6MWT: Do different methods of administration affect performance between healthy older adults and young adults?

Objective/Purpose:

The Six Minute Walk Test (6MWT) has been found to be a valid and reliable measure of functional endurance. This test is administered to people of all ages in tertiary care as well as fitness arenas. All testing is on a well-marked course and carried out over 6 minutes, although different instructions may be given to the subjects. The purpose of our study was to 1) assess the validity of the use of a pedometer measurement as opposed to the measured linear distance in the 6-minute walk test under two conditions with healthy young adults and healthy older adults, 2) note any significant differences in the distance walked with the instructions of "walk as fast as you can" versus "walk as far as you can" for the young versus old, 3) assess for differences across the conditions between healthy young able-bodied persons versus community dwelling elder able-bodied persons, 4) assess for possible differences the groups noted in rated perceived exertion (RPE) using the 6/20 point Borg test during each trial.

Conclusion:

In this study we demonstrate the validity of using a pedometer with healthy young and healthy older adults. Also, we found that the method of administration does not matter for this healthy population. Likewise the RPE was no different in either group no matter how this outcome is administered.

Healthcare Crisis and Role of Managed Healthcare

Student Name: Ruchiben Patel
Faculty Mentor: Kenneth Feifer
Department: Management

One of the current topics in the media is healthcare reform. Health care reform is receiving a great deal of attention due to the ever increasing cost of healthcare and medical insurance. The cost of health care increasing due to technology, prescription drugs, chronic disease, aging population, administrative costs and the need to improve quality and efficiency. There is one question that is arising. What is the solution for health care? I think managed care. Managed care is system of health care delivery that tries to manage the cost and quality of healthcare and access to healthcare. Managed care was founded by Dr. Shadid in the early 19th century. HMO (Health Maintenance organization), PPO (Preferred provider organization) and POS (Pointy of services) are three different kinds of MCOs which are different than FFS (fee for service). Some evidence supports managed care's ability to control cost and quality while other evidence does not. According to the nation's GDP rate, we can see that most of the money spent towards healthcare but many people cannot get enough health care services in reasonable rate. Thus a dilemma is created as to whether or not managed care improves the quality and increases profit or not. The bottom line is that healthcare is a human right so government has to take initiative to develop some fundamental changes to remove this long term crisis.

Baby Care System

Student Name: Qianqian Liang, Yingjia Li, Yixiao Xu and Xiang Ji
Faculty Mentor: Dr. Ziqian (Cecilia) Dong
Department: Electrical and Computer Engineering

It is no doubt that every parent tries to take care of his or her babies as well as possible. However, it always makes parents feel tired to look after their babies all day and night. Parents always find themselves having little time to take care of other things. Our project is to design a smart Baby Care System that helps parents to monitor the babies in a crib and automatically swing a crib to calm down the baby when they cry. Traditional baby cribs can only be swung manually, which can be a tedious work. Our Baby Care System, which can swing baby crib automatically, solves this problem. There is no doubt that this system has a great potential market. The system not only makes it easy for parents to take care of their babies, but also make the baby sleep faster and better.

The Baby Care System contains a crib that can be swung automatically. Furthermore, when the baby wakes up and begins to cry, the crib can start to swing triggered by the sound sensor automatically till the baby stops crying. Another function of the Baby Care System is that when the baby has been crying for a period of time, which can be set by the parents, the system will send an alarm to parents. This system is designed to help the parents who are deaf or physically far away from the crib. The system contains signal lights that inform the parents when their baby is crying in the crib. These signal lights can be also installed in the yard to make sure that even when parents are watering or planting in the area where they cannot hear alarm.

Our Baby Care System includes electronic and mechanical system designs. Our challenge is that our system can make the crib swing automatically and send a signal to active the alarm system at the same time once a baby cries. To solve this problem, we designed a sound sensor circuit, which includes a microphone, amplifiers and a comparator to catch the baby crying sound and convert the analogy signal into digital signal, which can be transmitted to the microprocessor to control the motor of the baby crib. The microprocessor can also count down the swinging time set by parents and send a signal to active the alarm system. In addition, our Baby Care System operates on two modes: manual and automatic. We use a reed switch in the implementation for the automatic function.

The Baby Care System will help parents monitor the baby, provide an automated swinging crib to help baby fall asleep and enable the parents to take care of other daily chores.

Session III Presentations
10th Floor
Room 1029
Moderator: Rozina Vavetsi
2:45 pm-3:45 pm

- "Project: We Believe'"
  By: Natasha Jahangir Butt

- "NO Releasing JS-K Induces Cytotoxicity"
  By: Waleed Abdel-Naby

- "Phylogenetic Analysis of Protein Families"
  By: Fauzia Bagum, Thuy Tien Le and Saleem Khan

- "The Effects of Phototherapy on Muscle Performance"
  By: Katherine Levane, Michael Santo,Tony Li, Joshua Klein, Ray Northern, Jeffrey Espinoza, Christina Rando and Lev Borukhov

“Project: We Believe”

Student Name: Natasha Jahangir Butt
Faculty Mentor: Dr. Niharika Nath
Department: Life Sciences

In today’s global society, there is the need to promote tolerance, and to highlight basic human rights especially in light of recent acts of barbarism and the ongoing revolution all around the world. “Project: We Believe” is an initiative and a platform to showcase the voice of sanity, for those among us who support civil, reasonable discourse to take a stand, and show that being a moderate does not equal being complacent. We believe in a safe, progressive society where people have the right to their beliefs, their opinions and their convictions without the fear of being victimized for them.

This project was initiated by myself early this year in the wake of the assassination of Governer Salman Taseer in Pakistan along with the Tuscon shooting that followed right after. In collaboration with my friend Mahnoor Yawar (who currently lives in Pakistan) I bought a domain name, created and launched this website in late January during the revolution in Egypt.

The way the website works is that an individual emails us a black and white picture of themselves and a quote taken from a famous personality, song etc. that goes with the theme of freedom, compassion and peace. We put the text on the picture using Photoshop and publish it on the website with their name and location. This way they become a brand ambassador for the movement. They become more than just a statistic, unlike on Facebook or a follower on twitter - they are an actual person that you can see and relate to.

As of recent we have incorporated video of interviews of young women telling us why they loved being a woman in celebration of March being Women's Month.

Since its launch in late January, “Project: We Believe” has gotten over 300 entries.

NO Releasing JS-K Induces Cytotoxicity

Student Name: Waleed Abdel-Naby
Faculty Mentor: Dr. Niharika Nath
Department: Life Sciences

Authors:
Mitali Chattopadhay[1]
Waleed Adel-Naby [2]
Niharika Nath[2]

JS-K is a nitric oxide releasing compound that inhibits the growth and induces apoptosis of lymphoblastic leukemia (ALL) Jurkat T cells in culture. However, the mechanisms for the cell growth inhibitory effects of JS-K are not completely elucidated. Cytotoxicity and release of NO in the culture medium due to JS-K was determined using acute lymphoblastic leukemia cell line Jurkat T cells.

Methods:

Jurkat cells were treated for 2, 4, 8 and 24 hr with various concentrations of JS-K including Triton X-100 as positive control. Cytotoxicity assays were performed by determining the lactate dehydrogenase (LDH) activity in the supernatant using the LDH-Cytotoxicity Assay Kit. Cells were treated with either 20 or 50 μM JS-K at which apoptosis is known to occur, and NO levels were measured as a function of time from the culture medium using a nitrate/nitrite colorimetric assay kit. A standard curve was generated using known concentrations of nitrate and the NO concentrations in samples were calculated. The results were expressed as μM nitrate/nitrite released by the cells.

Results:

JS-K induced cytotoxicity in Jurkat T cells. At 10 μM JS-K there was 40% cell death by LDH assay at 24 hrs. NO release increased as a function of time up to 18 hour. This data suggests that the kinetics of NO release and cytotoxicity are associated. Overall, JS-K may have potential to inhibit ALL cancer cell growth.

Affiliation of each author: [1]Department of Physiology and Pharmacology, City University of New York Medical School, New York, NY, [2]Department of Life Sciences, New York Institute of Technology, New York, NY.

Phylogenetic Analysis of Protein Families

Student Name: Fauzia Bagum, Thuy Tien Le and Saleem Khan
Faculty Mentor: Dr. Niharika Nath
Department: Life Sciences

Phylogenetic systematics or cladistics is a method of taxonomic classification that elucidates the historical relationships between organisms. Molecular phylogenetic studies evolutionary relationships between species using molecular data such as protein and deoxyribonucleic acid (DNA) sequences. Evolutionary relationships are documented by creating a branching structure called a phylogenetic tree that illustrates how a group of organisms (or genes) are related to one another. At the cellular level, analysis of protein sequence and structure shows that proteins can also be grouped into evolutionarily related families. Protein phylogenetic trees can be used to understand protein function and aspects of genome evolution. The p21-activated kinases (PAKs) are biologically important proteins. Other proteins like the E2F family of transcription factors have an important role in the control of cell cycle and have several evolutionally conserved domains among members.. We performed a phylogenetic study among the members of the family using multiple sequence alignment of selected proteins and generated phylogenetic trees, which can be used to understand function and aspects of genome evolution.

The Effects of Phototherapy on Muscle Performance

Student Name:	Katherine Levane, Michael Santo,Tony Li, Joshua Klein, Ray Northern, Jeffrey Espinoza, Christina Rando and Lev Borukhov
Faculty Mentor:	Dr. Peter Douris
Department:	Physical Therapy

Phototherapy is currently used to treat a variety of musculoskeletal conditions. The photochemical effects of phototherapy are that it can reduce oxidative stress and reactive oxygen species production, improve mitochondrial function and atp synthesis. Phototherapy has also been proven to decrease the onset of delayed onset of muscle soreness (doms) after exercise. Red light (660nm) and infrared (880nm) have been shown to increase electron transfer by activating the cytochrome *c* oxidase, which leads to increase in mitochondrial respiration and atp synthesis. Greater amounts of atp should lead to enhanced muscle performance and endurance. Blue light (405nm) on the other hand may enhance performance by changing the redox state of the cell enhancing muscular contraction. Previous research studies have demonstrated an increase in elbow flexion (bicep) muscle endurance with red and infrared wavelengths. The effects of blue light on performance are not known. Grip strength has been shown to be an overall indicator of physical strength, function, and health. The purpose of our study was to investigate the effect of phototherapy on improving grip strength muscle endurance. The hypothesis is that phototherapy will improve performance while minimizing the amount of lactic accumulated and producing less muscle soreness than the placebo condition.

Session III Presentations
10th Floor
Room 1021- TV Studio
Moderator: Carol Dahir
2:45 pm-3:45 pm

- "A Quantitative Study of New York City School Counselor Priorities, Perceptions and Activities"
  By: Jessica Arkin, Sunita Budhiraja, Magalie Casimir , Emily Hsieh, Zodie Tyson and Kristina Zemaityte

- "The Effects of Sleep Preparation on Sleep Onset in Adolescents"
  By: Zuleika Tenf and Tania Samuel

- "The Effects of Acute and Chronic Caffeine Use on Myocardial Oxygen Consumption in College-Aged Adults"
  By: Katherine Knips, Sung Hyun Chung, Brian Crane, Melissa Cuda, Gilberto Diaz, Roman Gressel, Michael Viscuso and Andrew Zambiasi

- "Using Second Life to Improve Class Room Participation with Adult Learners"
  By: Luc-Philippe Paulemon

A Quantitative Study of New York City School Counselor Priorities, Perceptions, and Activities

Student Name: Jessica Arkin, Sunita Budhiraja, Magalie Casimir, Emily Hsieh, Zodie Tyson and Kristina Zemaityte
Faculty Mentor: Carol Dahir
Department: Education

The purpose of this study was to obtain data from practicing New York City school counselors with regard to their priorities, activities, and perceptions regarding their commitment to implement the current national and state models for school counseling. Graduate students in school counseling used an existing instrument, the Assessment of School Counselor Needs for Professional Development (Dahir & Stone, 2007) to explore the practice of school counselors in New York City. Seventy-nine practicing school counselors in New York City completed the survey including 7 elementary school counselors (9%), 9 middle/junior high school counselors (11%), 50 high school counselors (63%), 6 K-12 counselors (8%), and 7 designated as "other" (9%). Additionally 39 counselors responded that they had no formal teaching experience (52%) and 36 counselors responded that they were former teachers (48%). Participants who had been teaching 6 years or less made up more than 50% of the sample.

Research students compared demographic variables for constructs measured by the instrument. These constructs included counselor activities around student development including: Academic, Personal/Social, and Career as well as school counselor involvement in Teaming/Collaboration, Consultation, Leadership, Counseling, Advocacy, and the use of Data. Demographics including years of service, prior teaching experience and gender were also factored into the analyses.

Collaboration with teachers, the impact of school climate, advocacy, leadership and personal-social development were some of the variables explored in the context of the school level that the counselor worked in and whether or not the counselor had prior teaching experience.

There were some significant differences revealed in the results related to perceptions, priorities, and activities. This study found no significant differences between gender and leadership, however, the results revealed significant differences related to the relationship between leadership and advocacy. These and additional findings are discussed which provide implications for the preparation and professional development training of school counselors.

A Quantitative Study of Long Island School Counselor Priorities, Perceptions, and Activities

Student Name: Justin Arini, Annemarie Freund, Natalie Grubstein, Lisa Mendolia and Laura Ok
Faculty Mentor: Carol Dahir
Department: Education

The purpose of this study was to obtain data from practicing Long Island school counselors with regard to their priorities, activities, and perceptions to implement the current national and state models for school counseling. Graduate students in school counseling used an existing instrument, the Assessment of School Counselor Needs for Professional Development (Dahir & Stone, 2007) to explore the practice of school counselors in New York City. Eighty-eight practicing school counselors on Long Island completed the survey. Research students compared demographic variables for constructs measured by the instrument. Constructs assessed were teaming and collaboration, consultation, leadership, advocacy, data, counseling, system support, academic development, personal-social development, career development, school counseling priorities, school setting perception, student development, and building and district expectations.

Participants included 32 males and 56 females; 45 high school counselors, 30 middle/junior high school counselors, 4 elementary school counselors, 1 K-12 counselors, and 8 who selected "other" on the survey.

Topics such as school counselor leadership, advocacy, teaming and collaboration were explored and analyses included T-test, person correlation and ANOVAs. Additionally, the relationship of collaboration and leadership, and collaboration with academic development were investigated. Gender differences, the influence of years of service in the role, and views of leadership were also explored.

There were some significant differences revealed among the counselor activities related to perceptions, priorities, and activities. For example, there were significant differences between elementary and high school counselors revealing that high school counselors work with students on career planning to a greater degree than elementary, middle/junior high school counselors. The perception of leadership engagement was designated at a higher degree for male counselors than female counselors. Academic development activities and teaming and collaboration also had a high positive correlation.

These and additional findings are discussed which provide implications for the preparation and professional development training of school counselors.

The Effects of Sleep Preparation on Sleep Onset in Adolescents

Student Name: Zuleika Tenf and Tania Samuel
Faculty Mentor: Gioia Ciani
Department: Occupational Therapy

A review of the literature on adolescent sleep problems suggests that altered circadian rhythm, technology and changes in roles among adolescents, affect their sleep quality. Additionally, many studies suggest that erratic sleep patterns of adolescents contribute to poor academic performance and health-related consequences, e.g. an increased risk of accidental injuries, mood disturbances, obesity, migraines, and sleep disorders (Knutson, 2009; Landis, et al, 2009; LeBourgeois et al, 2005; Lee, 1998; Millman, 2005; Spilsbury, 2004). However, in spite of an extensive search of the literature, minimal research was found on the impact of sleep preparation (also known as sleep hygiene) and sleep onset. Increased knowledge in this domain will benefit patients/clients and their families in dealing with sleep, which has a major impact on the quality of life.

A convenience sample of male and female adolescents (ages 12-17 years old) completed a questionnaire on activities performed the hour preceding bedtime on a school night. Each adolescent then rated all the activities they performed before bedtime as one of the following: calming, neutral or stimulating. Additionally, the adolescents reported the amount of time it took them to fall asleep (i.e. sleep onset). Data was then analyzed to determine if any correlations between the activities performed prior to bedtime and the amount of time before sleep onset exist.

The purpose of this research was to learn about sleep preparation among healthy male and female adolescents, ages 12-17. The study focuses on occupational behavior, as reported by the subjects, during the hour before bedtime and prior to sleep onset. It was hypothesized that a longer period of time before sleep onset is directly correlated with the adolescent's participation in stimulating occupations the hour prior to bedtime. This study is likely to yield generalizable knowledge to further society's understanding of how sleep preparation affects sleep onset in adolescence.

The Effects of Acute and Chronic Caffeine Use on Myocardial Oxygen Consumption in College-Aged Adults

Student Name: Katherine Knips, Sung Hyun Chung, Brian Crane, Melissa Cuda, Gilberto Diaz, Roman Gressel, Michael Viscuso and Andrew Zambiasi
Faculty Mentor: John Handrakis
Department: Physical Therapy

Consumption of coffee and other caffeine containing products is routine in young adults. Recent surveys report that 40% of those 18 to 24 years old and 54% of those 25 to 39 years old, drink coffee daily.

Objectives:

To compare the effects of acute and chronic caffeine use on heart rate (hr), systolic blood pressure (sbp) and myocardial oxygen consumption, in young adults, at rest and post submaximal exercise.

Study Design:

A prospective, two-group observational study.

Methods:

thirty eight college-aged students (19 female, 19 male) were grouped as either chronic caffeine users (ccu: consumed $\geq$300 mg of caffeine/day) or non-caffeine users (ncu: consumed < 50 mg caffeine/day). Subjects were administered either a caffeine pill (5mg/kg bw) or a placebo pill on two separate days and, after 1 hour, performed a 3-minute step test on each day. Caffeine and placebo days were randomly assigned. Bp and hr were recorded at baseline, pretest and posttest.

Results:

No significant group (CCU, NCU) effect was noted on HR, SBP or RPP at baseline, pre or post-test. However, when sub-grouped by gender, CCU males had consistently higher SBP than CCU females ($p<0.001$) and NCU males ($p=0.009$) at all time points. RPP was consistently higher in CCU males than CCU females ($p=0.04$). Acute caffeine ingestion significantly increased resting SBP only in NCU males (5.8±5.6%; $p=0.02$).

Conclusions:

Chronic caffeine consumption appears to be associated with higher SBP in males than females both at rest and post exercise as well as higher myocardial oxygen consumption at similar levels of exertion. Acute use of caffeine appears to have its greatest effect on increasing resting SBP in males unaccustomed to caffeine use. These results suggest that caffeine use may have disparate cardiovascular effects among genders, the most notable being a significant vasopressive effect in males. For males predisposed to hypertension, caffeine use should be addressed when trying to decrease cardiovascular risk.

Using Second Life to Improve Class Room Participation with Adult Learners

Student Name: Luc-Philippe Paulemon
Faculty Mentor: Dr. Shiang-Kwei Wang
Department: Education – Instructional Technology

Second Life (SL) (http://www.secondlife.com) is a virtual reality program that allows users to communicate and connect in 3D. With the onslaught of advance technological changes in the classroom it has become possible for instructors to use SL as an alternate tool for their course. This study will take a closer look at how SL can improve class room participation with adult learners. To understand how each participant utilized SL in the study, an anonymous online survey was given to each participant along with open ended questions that requested additional feedback on the use of SL in general. The quantitative and qualitative data indicated that SL helped to improve the participation of each student during the online session. The majority of the respondents were full time teachers and overall they felt that SL can be a good way to introduce new topics to other students for the first time. The additional feedback from the open ended questions showed that a majority of respondents for this study used SL for the first time. Additionally respondents felt that the program has some technical advantages and disadvantages in regards to communication and setup. The overall findings of this study imply that using SL as a tool to help improve participation with adult learners is positive, additionally the feedback suggests that support and up to date technology will help to make the process more successful.

Session III Presentations
7th Floor
Room 721
Moderator: Burton Roslyn
2:45 pm-3:45 pm

- "Your Stay, Your Choice"
  By: Louie Oliver, Claudia Hoang, Maylissa Auguste and Lauren Blando

- "Fed Challenge"
  By: Geoffrey Kaicher and Roger Jameson

- "NYIT School of Management: Creating Student Leaders"
  By: Andrew Lai

- "FIELD TRIP School"
  By: Adele Schachner

“Your Stay, Your Choice”

Student Name: Louie Oliver, Claudia Hoang, Maylissa Auguste and Lauren Blando
Faculty Mentor: James Turley
Department: Hospitality Management

There’s no industry that demands customer service than the hospitality industry. Technology is evolving rapidly and we’re seeing a lot of changes in hotels, airlines, and restaurants and how they’re run. Our class is here to present PROS of how both customer services is still important and how technology is soon going to be the new “engagement” for all guests.

Employee and guest relationships are crucial because they create repeat business and loyalty to a specific company. No matter how great the technology is, you still need someone there to serve you face to face. Even though our generation is looking for a more high tech experience, technology can’t solve every problem. Let’s face it technology doesn’t have the “brain” to deal with certain situations such as emergencies; people are trained to identify the problem and know the priority. Customers and guests pay for service not for the technology that’s in a particular hotel, restaurant, or any other hospitality field. When you remember a place, you think of how great the service is because guest interactions is one of the first things you talk about with friends and family. Effective customer service can create a positive brand perception and what people should realize is that technology can only do so much for a person.

As mentioned previously, it is inevitable that technology will soon fully take over the hospitality industry. More and more customers are interested in the luxury of having high tech products, staying in a more futuristic room, and ordering foods/products through kiosks. Throughout the industry, places are starting to modernize and keep up with interests of the customers. Hotels for example are now putting IPADS in rooms to take care of their whole stay. Whether it orders movies or room service, simply put this particular item can eliminate any discrepancies with actual employees. Just imagine a fully automated hotel, a place where a guest can relax on their own and have full control of how their stay is. Technological innovations translate into more efficient ways of running a business, a way of gaining new customers, and in a sense leaving it up to technology to take care of the customers.

Now, which would you prefer? We leave it up to you to decide what you look for in a particular place. Our industry relates to more than fifty percent of today’s customers, eventually it will be your time to decide.

Fed Challenge

Student Name: Geoffrey Kaicher and Roger Jameson
Faculty Mentor: Dr. Diamando Afxentiou and Dr. Paul Kutasovic
Department: Economics

As members of the 2010 NYIT Fed Challenge Team, we were asked to "undertake research, analyze data about current and near-term economic conditions and then decide upon a specific course for monetary policy." We were then asked to make a presentation from our research and formulate interest rate recommendations for the quarters to come. As a group, we spent a total of 3 months working on the project, meeting weekly to discuss research and recent economic updates.

Our presentation begins by explaining the recent financial collapse. We take an in depth look at the housing market collapse and the effect of financial tools on the housing market. By taking a look at our past economics, we can create recommendations that will hopefully prevent us from making those mistakes again in the future.

Next we take a look at where we are now. We take a look at current Federal Reserve policies and how they have effected the global economic situation. Also, we look into foreign policies and how their ideals have affected their country's economy, both for good or bad.

Finally we formulate policy and interest recommendations for the quarters to come. By taking a close look at previous and current policies and analyzing how they have affected global economics, we can originate new recommendations that will hopefully help steer our country's economy in a more prosperous direction.

Overall, our presentation for the 2011 SOURCE Event will not only cover our economy over the past 4 years, but we will also be scratching the surface of global economics and looking at how our actions can cause ripples throughout society. Hopefully by listening to our discussion, our audience will become more informed on our world's current economic situation and gain more confidence in where we can move going forward.

NYIT School of Management: Creating Student Leaders

Student Name: Andrew Lai
Faculty Mentor: Dr. Robert J. Koenig
Department: Management

This documentary-based video shows the cultural diversity of the student body within the School of Management at the New York Institute of Technology. The students in this video have participated and led numerous academic and professional-oriented events; therefore they have experienced a wealth of educational and leadership opportunities. The students interviewed expressed their opinions and the impact the School of Management has had on their educational growth, professional development and leadership skills.

FIELD TRIP School

Student Name: Adele Schachner
Faculty Mentor: John DiDomenico
Department: Architecture

Over the last decade, students have become increasingly overstimulated by the media, technology and other sources. The fast pace of our world has changed students' thought processes, and the classroom, as well as the school as a whole, must be reconfigured to meet the current educational need. The FIELD TRIP School is an analytical study of school design throughout history, followed by a design proposal for the school of the future. The design of the FIELD TRIP school allows for a diverse set of learning experiences for its student body by promoting active learning that engages the senses. This is accomplished by breaking down the various programmatic elements within the school and reconfiguring them as learning 'pods.' These pods are spread throughout the city, resulting in the city being regarded as a school, and the school as a city of real life experiences.

The FIELD TRIP school promotes collaborative learning and the fundamental theory that subjects are all inter-related. Bridges linking individual subject 'pods' allow students to understand the connection between the subjects connected by the bridge. In this way, the school is transformed into a gradient, where each subject blends into the next for an integrated learning approach. Additionally, FIELD TRIP school research includes studies of ways in which a school can cultivate communal learning, enabling knowledge to flow between student and community. In this respect, the educational facility has the opportunity to repair tension and bring communities together by fostering unity among different racial and cultural groups.

Session III Presentations
7th Floor
Room 722
Moderator: Youjeong Kim
2:45 pm-3:45 pm

- "No Wonder! The Fun Organic Sweet Chocolate Treat"
  By: Wijdan Al-Johani, Amanda Browne, Monika Mimmanen, Adriana Muniz and Gabrielle Slow

- "The Sting of Stigma"
  By: Tara Fraser

- "Solar Pump and Still"
  By: Himanshu Upadhyay

- "Network Security through (IPv4 compared to IPv6) Packet Filtering"
  By: Aree Nader

No Wonder! The Fun Organic Sweet Chocolate Treat

Student Name: Wijdan Al-Johani, Amanda Browne, Monika Mimmanen, Adriana Muniz and Gabrielle Slow
Faculty Mentor: Youjeong Kim
Department: Communication Arts

As a part of a class project, an advertising campaign for new product, No Wonder!, an organic chocolate candy has been developed. We created a 30-second radio AD as well as print AD.

Our pledge is to bring No Wonder!, The Fun Organic Sweet Chocolate Treat, an organic chocolate candy to millions of families who wish for a healthy snack alternative. The No Wonder! Company was founded by five amazing young ladies; some are moms to young kids, with the idea of creating an organic, good quality, fair-trade chocolate available on a mass market scale for children and the young at heart. We love chocolate and it is wonderful to be able to do this product; this is a passion for us. We are trying to encourage children to savor the moment and the flavor, making a wish when they have some, and appreciating it, not just wolfing it down. Consequently there's a world of fun based around the stories on our chocolate bar wrapper, with a story to read and games to play on the No Wonder website. The ethos behind the brand is clearly to explain to children too, with bright- colored pictures and explanations about organic ingredients. Our products will lunch soon with creative themes for the holidays. No Wonder!, a delicious chocolate natural organic candy, will keep our children healthy while drawing on our commitment to the environment. We have seen how gummy candies and jelly beans, made from organic and natural ingredients have flooded the market. These organic candies are drenched in fresh fruit flavor and fortified with vitamin-C. The candies are non-GMO, gluten-free, produced in a nut-free facility and are one of the few candies produced without corn syrup. In addition, the treads are packaged in a manner that minimizes the impact on the environment. Organic candy grew by 14.1 percent to more than $127 million in 2008, according to SPINS can data taken from the natural food merchandiser. It also mentions, parents increasingly seek natural and organic products for themselves and their families". With the growth of the organic market, No Wonder!, The Fun Organic Sweet Chocolate Treat will flood the market delivery an excellent product to healthy conscience families messaging the nonfat organic alternative. Our product will be a portion size snack that is tasty and light without compromising the chocolate taste. Product will also be an advocate for prevention of child obesity as well as encouraging exercise and outdoor activities.

The Sting of Stigma

Student Name: Tara Fraser
Faculty Mentor: Dr. Dena Winokur
Department: Communication Arts

After the women's empowerment movement, the continuation of keeping the voice of strong women alive has in some cases become a constant struggle. For years, there was an ongoing battle in attempts to get women's voices heard, and yet nowadays or in today's society it is as if the battle has lost its volume.

In my project, I want to take a closer look at the lives of women in today's society and how it is truly making an impact on females of all ages. The project will be broken down into during categories, while still coinciding with one another to tie in the main theme of embracing our womanhood, and the power behind our voice.

The various topics which the project touches on is based on two books in which I have read, entitled "Yes Means Yes" and "Body Outlaws". Each book talks about females' or female sexual health and the struggle of living in a society that makes women accountable for being rape victims. The other is about body image issues and being able to understand that the ideals put on females through media are not the realistic ones.

Second, my own research and independent study show how women have the power to embrace one another and allow the growth of strength in numbers throughout the female species. It also talks about the influence on women through media.

Lastly, I want to show ways to use women's voice and how organizations are using their own perspective to help women learn to embrace themselves in sexual, physical, and emotional aspects to help enrich their lives and the community which they are a part of.

Solar Pump and Still

Student Name: Himanshu Upadhyay
Faculty Mentor: David Nadler
Department: Environmental Technology

We are living in an age, where the issue of population is unbounded. The basic amenities like food, water, shelter etc. are in a lot of demand. As we know, only 5% of the water on the earth is available in drinkable or usage form. Also, there is a lot of demand of pure/drinkable/distilled water in developed, developing as well as under developed countries because of lack of resources and lack of required infrastructure.

Keeping this scenario in mind, I have devised a model which can convert impure water or muddy water or brackish water into pure/drinkable/distilled water using solar energy. The basic modes of heat transfer involved in the model to obtain the output are conduction, convection, radiation along with mass transfer. The results are obtained by condensation of impure water. The condensate has Total Dissolved Solids (TDS) less than 30ppm, which indicates the available output is pure water. The same can be used as pure/drinkable/distilled water.

Further, I have varied various parameters like flow of water, different types of water. Few more parameters can be changed like water depth, provide the fan for enhancement of the heat transfer etc., which results in increase in the efficiency of the model.

Network Security Through (Ipv4 Compared to Ipv6) Packet Filtering

Student Name: Aree Nader
Faculty Mentor: Dr. Raed Abu Zitar
Department: Engineering and Computing Sciences

Internet network through the latest unique internet protocol. The updating of IPv4 to IPv6 improves this process with developing new technology or updating it. This involves the issues of security and compatibility with the devices and the vulnerability of IPv6 security, and how to use it in packet filtering of network and communication. With this new version of IPv6, service providers will face new problems due to security and technical issues in packet filtering. The goal of this research is to evaluate the capability and effectiveness of operating system applications to provide packet filtering for services to both versions of IPv4 and IPv6 Internet protocols. This study will collect information and experiment with each new improvement to compare and evaluate the technologies of IPV4 and IPV6.

On Permanent Display
11th Floor Conference Center Lobby

- "People: Mind Crash"
  By: Mohamad Saada and Fadi Abu-Haltam

- "Healing With Aesthetics"
  By: Hanaa Babieh and Reem Smadi

- "The Mystery of Ba'la: Neolothic Barricades"
  By: Bashar Mahdawi

- "Comparison of Quantum Dots and Organic Fluorophores as Fluorescent Labels in Binding Assays"
  By: Mosadoluwa Obatusin

- "Mandated Student Service Hours"
  By: Ream Bahassan

- "Physician Assistants Perception of Direct to Consumer Advertising (DTCA)"
  By: Justin Anzalone, Michael Suprenant and Asha Mathews

- "Special Project B (Film Making Project: Gilgamesh Pearl)"
  By: Hamad Abdulla Ali and Sara Ahmed

- "Pet Ownership & Its Relationship in Meaningful Occupation for Adults"
  By: Sylvia Kamran, Rena Liu and Cecilia Peralta

- "Relationship of Tomophobia (Fear of Surgery) to Sexual Abuse: A Role for Occupational Therapy"
  By: Stefanie Gofter, Danielle Mongelli and Malarie Moore

- "Evaluation of the Home Care Fall Reduction Initiative Risk Assessment Screening Tool Generated Interdisciplinary Balance Program"
  By: Kristin Engesser, Dipal Patel, Antonios Kambouris and Victoria Gonzalez

- "Participating in a Global Health Initiative in Ghana: A Toolkit to Facilitate Student Success"
  By: Margarita Koutsouras

On Permanent Display
11th Floor Conference Center Lobby

- "Designing a Water Chamber to Optimize 3D Protein Imaging"
  By: Peter Ghali

- "La Vida De So Los Muertos (The Life of the Dead)"
  By: Jonathan C. Greco

- "Imagine Academy Masquerade Promo"
  By: Jabari Clarke-Pennegan

- "The Effect of the PostureJac Stabilization on Lower Abdominal Endurance"
  By: Justin Chilesky, Denise Crooks, Chris Estafanous, Christopher Horan, Dalwoo Lee, Jessica Matarrese, Julie Vancour and Michael Wirth

- "Wish Upon a Star"
  By: Eizle-Bern Galang

- "Advertising Campaign for Applegate Farms"
  By: Jenelle Richards-Davis, Aiche Sissoko, Jie Gu and Sijia Xie

- "Molecular Phenotypes of Neocortical Malformations in C57BL/6J Mice: An *In Silico* Analysis Using the Allen Brain Atlas"
  By: Elsaid Salem, Elizabeth George, Dhruv Patel and Paulina Guta

- "The Circulatory System: The Anatomy and Evolutionary Development of the Human Circulatory System Versus that of the Thescelosaurus Dinosaur"
  By: Aisha Aziz, Reetu Sondhi, Jennifer Ardila, Aleeya Setaruddin and Fadila Radoncic

- "Comparison of Gran Plot Method and the Dsnlls Method Using Potentiometric Titration"
  By: Aisha Ashfaq and Fateha Ahmed

- "Love, Lost, Found"
  By: Michael DeNiro and David Roberts

- "Stereochemical Elucidations of Organophosphorus Pesticides via Chiroptical Methods"
  By: Qurratul Jameel

On Permanent Display
11th Floor Conference Center Lobby

- "The Characterization of Alternative DNA Structures in Xeroderma Pigmentosum Genes"
  By: Sarah Syed, Justine Chen, Dibnain Nanda, Priya Nanda and Midath Habeeb

- "Cell Counting of Normal Human Epidermal Tissue"
  By: Aleshaw Dinaram and Mohammed Islam

- "Microbial Energy Solutions"
  By: Ronika Sethi

- "Visual Culture???"
  By: Corey-Dwayne Lewis

- "Nirvana"
  By: Saila Mukta and Crystal Haroon

- "Demo Studio Showcase"
  By: David Cole, Vaughn Sams, Caprica A. Stanley and Michael Robertson

- "Subway Tunnel Set Design/Build/Lighting"
  By: Andrew Hankins

- "Automobile Advertising: A Creative's Dream"
  By: Jenniffer Alban, Alex Bennett, and Max Behr

- "United We Stand: New York State Nurses Association Lobby Day Preparing Nursing Students for Political Activism: Applied Action Research"
  By: Karine Nelson, Tesha Bonner, Hero Pamnani, Winola See Wing To, Lino Jacob, Malaura Rosselli, Dershawn Sibbles, Margarita Koutsouras, Rowena Mohabir, Sayanna Hilaire, Jessica Guglielmoni, Junie Philitas, Lianna Jackson, Regina Vilsaint, Jasmine Sancho and Samantha Nicole Davis

People: “Mind Crash”

Student Name: Mohamad Saada and Fadi Abu-Haltam
Faculty Mentor: Dr. Jacqueline Taylor Basker
Department: Fine Arts/Computer Graphics

How do people from different culture and backgrounds see each other when they first meet? How can things change as they get to know each other? This video is about two guys who meet, and don’t relate to each other at first, but become good friends afterwards. Although they shared classes, they didn’t speak to each other for an entire semester. Some of their behavior and ideas shocked each other – their minds crashed. An event occurred that unexpectedly got them to talk and realize that they were more mature than most of their classmates. This began to change their relationship and they began hanging out together. In a class they took a personality (MBTI) test and discovered they had the same score and they were both in a rare personality category! After this they began to discover how much they had in common despite their cultural differences. One student was raised in the US, and the other in Jordan. This film will consist of both inner and outer dialogue. Using humor and cinema verite techniques, they document this transformation through a voice-over of dialogues of their inner thoughts. We will show how our first impressions changed over time as we got to know each other. The first part of the film will focus on inner dialogues to show what we thought of each other through our stereotypes of each other. In the second part of the film there is a more honest exchange of our ideas and opinions. The main idea of this video is to show how two very different people meet, and can reverse their opinions about each other, become friends, and accept the differences. We shall also create a movie poster for display.

Healing With Aesthetics

Student Name: Hanaa Babieh and Reem Smadi
Faculty Mentor: Dr. Jacqui Taylor Basker
Department: Fine Arts

Aesthetics is "the study of the mind and emotions in relation to the sense of beauty."[1] The aesthetic of any interior is connected to the aspects of human daily activity. According to physicians, the physical development of the human body is directly related to its emotional development. Not many people understand how design contours people both psychologically and physically. In order for people to value art and interior design, one must identify how a positively designed environment impinges on our mental and physical condition. This research project will explore how fine art influences patients' health by the simple application of design within hospitals.

The following project will include a brief description of the Formal Elements and Principles of Design, and their relation to health. It will research how Adam Rubinstein, an influential American interior designer, has enhanced many patients' lives with the One Dream Design Project. Rubinstein designed the interior of the Heart Hospital and the Heart Institute of the Desert in Rancho Mirage, in California. His work, and the general principles and elements of Interior Design, will be applied to the King Hussein Cancer Hospital Interior Design. We will redesign a portion of this hospital using concepts of Interior Design. We shall also apply the principles of Feng Shui, the Chinese geometric practice in which a structure or site is chosen and configured to harmonize with spiritual forces.

[1] Dictionary.com

The Mystery of Ba'la: Neolothic Barricades

Student Name: Bashar Mahdawi
Faculty Mentor: Dr. Jacqueline Taylor Basker
Department: Computer Graphics

Situated 14 kilometers north of the famous Rose city of Petra, the Neolithic site of Ba'ja is a village that was inhabited by the earliest near eastern sedentary societies, ca. 7000 BCE. It is a very recent discovery, and site excavations are still under process. The village is one of only four sites discovered around the Petra region so far. Our project proposes answers to the question: "Why?"

Its dense terraced stone houses were among the first forms of **square** architecture. Prior to this, houses were only built in an oval shape, hut-like manner. It is interesting to study how early societies thought of space conservation, and protection. These houses are protected from all sides by high rock formations and a deep gorge. It takes a 3 hour hike to reach the place from the excavation center's camp site. It also requires a 1 hour jeep ride across the desert dunes from the nearest city to that campsite.

Our study will investigate possible reasons for this geographic isolation, and will include presentation of the latest scientific evidence about the site. We will review speculations about why the village's inhabitants lived in such isolation and attempt to provide possible answers to these questions. Why did they need to be protected in such a barricaded setting? How was their society organized? Did they domesticate animals or practice any form of agriculture? Were they self-sufficient or is there evidence that they traded with other groups? We will also interview local Bedouin tribes, who have inhabited the area for millennium, and find out the local oral traditions about the site.

We will include a gallery of photographs taken from the site itself, sketches of how the houses might have looked, as well as a 3D speculative reconstruction of the houses in the village using 3D Studio Max software.

Comparison of Quantum Dots and Organic Fluorophores as Fluorescent Labels in Binding Assays

Student Name: Mosadoluwa Obatusin
Faculty Mentor: Dr. Jeffrey D. Zahn and Lawrence Sasso
Department: Biomedical Engineering

When studying life science applications, many experiments rely on the use of immunoassay and or fluorescent labels as a means of quantifying protein concentrations within samples obtained during the experiment. One of the more exciting and increasingly popular technologies used for fluorescent detection and immunosensing is the use of quantum dots (Qdots)-semiconductor nanocrystals as a fluorophore, where the fluorescence emission characteristics of the nanocrystals are closely related to the size and shape of the individual particle. This work presents experiments conducted comparing the use of Qdots as a labeling fluorophore to organic fluorophores, specifically in binding assays as a model for immunoassays. We hypothesize that in traditional benchtop assay binding, quantum dots should outperform organic fluorophores. We also hypothesize that quantum dot labeling will function similarly within microfluidic immunoassays as it does with bench-top assays, as has been the case for organic fluorophores. To test this hypothesis, two methodologies were used to incubate the beads; benchtop and micro-device binding assays. Prepared samples of beads were incubated in a series of standard biotin-FITC (fluorescein isothiocyanate) and Qdots of varying concentrations. These bead-sample solutions were analyzed for fluorescence intensity using a Becton Dickinson Fascalibur flow cytometer to generate calibration curves of fluorescence versus biotin concentration, FITC and Qdot. Our results prove that Quantum dots outperform organic dyes both under benchtop assay as well as under micro-device assay. The results show that Qdots exhibit significantly higher fluorescence intensity than FITC with no photobleaching as is common with organic fluorophores. Overall, the data were described by a sigmoid plot; nevertheless, a sub-region of linearity was observed which validated previous work where bench-top incubations were performed in order to validate a paramagnetic bead immunofluorocytometry assay with fluorescent detection. Furthermore, it is believed that the use of quantum dots over organic fluorophores will result in an improved detection limit in terms of minimum assay concentration sensitivity increasing. Most importantly, when used in clinical research applications, it may aid in the development of better treatment options for systemic inflammation during and after cardiac surgery.

Mandated Student Service Hours

Student Name: Ream Bahassan
Faculty Mentor: Dr. Garon Wheeler
Department: Architecture and Interior Design

From humble beginnings to record breaking achievements the United Arab Emirates (UAE) is a nation distinguishable for not only its progress but also for its future endeavors. However, tremendous growth and outstanding achievements are only viable if they are sustainable. Education is at the root of that progress and there is an ongoing need to enhance access of education for sustainable growth within the country.

Education should be the strength behind all countries' route for success and the UAE places high priority in fostering an educational system that is parallel to international standards. Education in the UAE has been growing rapidly over the past decade to meet the population rise and the quality of education is continuously improving due to numerous steps being taken by the ministry of education. The opening of numerous new high schools and institutes of higher education to the students of the UAE is one of many gradual steps being taken by the UAE in the field of education to secure that the young minds of today are ready for the challenges of the 21st century in accordance with the 2020 vision. The 2020 vision is a strategy created by the ministry of education to develop initiatives, innovations and techniques implemented through a series of five-year plans to improve the skills and self-learning abilities of students.

In step with the 2020 vision, the UAE can greatly benefit from the innovative initiative of introducing a certain number of mandatory service hours as a requirement for students in high school as well as higher education to perform at not-for-profit educational organizations in order to receive their degrees. The initiative stands to benefit both the students as well as the not-for-profit institutions they will volunteer at. The students will gain a broader perspective of the scope and worth of education in addition to gaining work experience and life skills. Their employers will receive a dramatic increase in quantitative/qualitative support, which will help organizations lacking adequate staffing and overall, the initiative will enhance the support the organization gives to its recipients.

Physician Assistants Perception of Direct to Consumer Advertising (DTCA)

Student Name: Justin Anzalone, Michael Suprenant and Asha Mathews
Faculty Mentor: Lawrence Herman
Department: Physician Assistant Studies

Objective:

To determine physician assistant's (PAs) perspective on direct to consumer advertisement (DTCA).

Methods:

This study surveyed PAs working in the five most common fields of medicine for PAs, according to the 2008 American Academy of Physician Assistants Census report. The fields of medicine studied included: family and general medicine, internal medicine including cardiology and internal medicine specialties, emergency medicine, general surgery and surgical subspecialties (orthopaedics, neurosurgery, cardiothoracic, other specialties), pediatrics and pediatric specialties. The survey questioned PAs opinion toward DTCA and the effects on the patient-PA relationship.

Results:

A total of 1,254 practicing physician assistants (PAs) completed the survey. 91% of PAs responded as familiar with DTCA. When asked about their general perception, 96% of PAs did not favor DTCA. PAs felt that DTCA had a negative impact by atypical medication requests (76%), overlooking PAs medical opinion (54%), and 54% of PAs felt that DTCA made patient seek other healthcare provider if their request was not given.

Conclusion:

This national study of PAs identified both beneficial and harmful effects of DTCA, although the vast majority (96%) of PAs do not favor DTCA. The negative sentiment toward DTCA was felt across all fields of medicine studied.

Special Project B (Film Making Project: Gilgamesh Pearl)

Student Name: Hamad Abdulla Ali and Sara Ahmed
Faculty Mentor: Zeeshan Jawed Shah
Department: Fine Arts

Gilgamesh Pearl is a 60 minute action film; a project which is based on the course Special Projects B (School of Fine Arts and Computer Graphics). This course was offered in Fall 2010, and the movie was completed in January 2011. Students have incorporated motion graphics, 3D animation, visual effects and sound scores in the movie. They also practically worked on camera angles and storytelling which they learned in their thesis class. Camera, tripod, Chroma screen, soft boxes, were provided by NYIT. Students worked on the whole project through NYIT's computer graphics labs and some of the equipment like the camera crane, barn doors lights, reflectors, and boom mic were provided by a local studio as a donation. The story of the movie and plot was written by Hamad Abdullah Ali who is the director and writer of the movie, Sara Ahmed worked as an executive director for the movie, all the actors in the movie are current students and graduate students of NYIT. Casting of the movie was done earlier in the fall semester, and it was started with a session of audition on the campus, and students from the audition were selected for the movie. The movie is going to be screened in one of the cinemas in Bahrain. Rental of the cinema screen was provided by NYIT Bahrain, and students got the sponsors for advertisement of the movie and the department. The money of the sold tickets will go to a NY based charity agency called Charity: Water. Each ticket sold will help us to build clean water wells in Africa.

Pet Ownership & Its Relationship in Meaningful Occupation for Adults

Student Name: Sylvia Kamran, Rena Liu and Cecilia Peralta
Faculty Mentor: Tricia Nicholes
Department: Occupational Therapy

This study examined pet ownership as an occupation within one's activities of daily living. The goal was to identify the potential relationship between owning a pet as a meaningful occupation and identify potential benefits in relation to owning a pet. The American Occupational Therapy Association (AOTA, 2008) defines occupation as "goal-directed pursuits with purpose, value, and meaning to the performer and involve multiple tasks, which typically extend over a period of time." One can conclude that pet ownership would be considered an occupation due to the commitment of the caregiver in providing water, food, and protection, as well as caring for a non-human being. Oxford (2010) defines a pet "as a domestic or tamed animal or bird kept for companionship or pleasure and treated with care and affection". Ownership, as defined by Webster (2010), "is the state, relation, or fact of being an owner or to hold objects as property."

The following were two hypotheses proposed for this study:

1) Do the dimensions of owning a pet elicit behaviors that are specific to be beneficial to both human and animal?
2) Do these specific behaviors provide meaningful occupation for adults?

The data concluded that the majority of the participants believed pet ownership is a meaningful activity in their daily life and felt strongly attached to their pets. This was consistent across all socioeconomic groups. Majority of caregivers strongly considered their pet as a great companion and strongly agreed that owning a pet added to their overall happiness and wellbeing. Pet owners who actively engaged with their pets were more likely to have a close bond with them due to gaining an understanding of the pet's body language, behavior, and even facial expressions.

Relationship of Tomophobia (Fear of Surgery) to Sexual Abuse: A Role for Occupational Therapy

Student Name: Stefanie Gofter, Danielle Mongelli and Malarie Moore
Faculty Mentor: Pat Precin
Department: Occupational Therapy

Objective:

The purpose of this study was to determine whether survivors of sexual abuse have a greater fear of surgical procedures compared to a sample of the population who do not have histories of sexual abuse.

Method:

A quantitative research design was implemented to determine if there was a relationship between the fear of surgery and having a history of sexual abuse compared to a sample of the population who reported not having a history of sexual abuse. This was accomplished using the demographic inventory and the tomophobia assessment. Percentage of fear with regard to specific procedures was compared to the experimental and control groups, as well as a combined group consisting of all participants.

Results:

A *t*-test and *f* test generated no statistical evidence to support that self-perceived sexual abuse was related to a change in the degree or incidence of tomophobia between control and experimental groups. The experimental and control groups were combined and analyzed, which yielded that 57.69% of participants (n = 156) reported fear in at least one procedure of the combined categories, that included invasive procedures and/or minor procedures/medical examinations, 53.85% reported fear of invasive procedures, and 28.21% reported fear of minor procedures/ medical examinations.

Conclusion:

Although statistics from this study did not demonstrate a relationship, previous studies documented a relationship between fear of various medical procedures and having a history of sexual abuse. This disparity exemplifies a need for further research in order to understand this relationship. However, since 57.69% of participants (N = 156) reported fear, occupational therapists can potentially aid clients with tomophobia in coping with stress and anxiety related to their fears regardless of whether or not they have histories of sexual abuse.

Evaluation of the Home Care Fall Reduction Initiative Risk Assessment Screening Tool Generated Interdisciplinary Balance Program

Student Name: Kristin Engesser, Dipal Patel, Antonios Kambouris and Victoria Gonzalez
Faculty Mentor: Rosemary Gallagher and Veronica Southard
Department: Physical Therapy

Background and Purpose:

The high incidence of falls in the elderly, particularly in the home setting, has created a need for effective falls screening tools to identify those elderly at risk for falls. However, there is no consensus in the home care community on a tool that is reliable and valid to assess fall risk for this population. Additionally, the Center for Medicare and Medicaid services now requires home care agencies to have a standardized process in place to assess fall risk. With this in mind, Catholic Home Care, with offices in Long Island, NY, has put in place a fall risk assessment and rehabilitation program using a fall risk-screening tool developed by the Missouri Alliance for Home Care called the Home Care Falls Reduction Tool. The purpose of this study was to determine concurrent -based validity of the HCFRT using the Performance Oriented Mobility Scale (Tinetti). Secondly, the benefit of the "Balanced Approach" rehabilitation program was assessed using pre and post Tinetti scores. Thirdly, we examined the incidence of falls before and after the falls screening and rehabilitation program began.

Methods:

The study design was a randomized, retrospective chart review of 289 patients who were referred to Catholic Home Care services in the first half of 2009. Incidence reports from the first half of 2009 were also reviewed and compared to incidence reports for the first half of 2008 to determine whether there were any differences in falls numbers or types.

Results:

Our primary objective, to determine concurrent based validity of the HCFRT and the Tinetti, resulted in a negative correlation ($r = -.207$, $p < .001$). A significant difference in Tinetti scores pre and post intervention was found with a mean improvement of 5.4 points ($t=106.98$, $p< .001$). In 2008 5.6 % of clients fell, as opposed to 6.2% in 2009 indicating no significant difference. However, significantly more falls occurred during ADL's in the home in 2008 and IADL's outside the home in 2009.

Conclusions:

The HCFRT may be effective in the identification of fallers based on the weak correlation of a multidimensional tool with the performance only oriented Tinetti. We also found significant meaningful change in Tinetti scores pre and post rehabilitation intervention indicating that the Balanced Approach rehabilitation program was effective in improving mobility during the time period studied. We noted that the source and or location of falls that occurred after participation in the program indicated a higher level of mobility than the falls that happened prior to the program. Future studies should assess the long term benefit of this program. Other studies might assess the fact that all falls are not the same.

Participating in a Global Health Initiative in Ghana: A Toolkit to Facilitate Student Success

Student Name: Margarita Koutsouras
Faculty Mentor: Dr. Susan M. Neville
Department: Nursing

Overview:

Integrating oneself in the clinical and/or preventative health projects of a resource-poor environment enables a student to develop an increased understanding of the humanitarian and altruistic ideals that form the principles of preventative health care. This summer, I participated in a NYIT Center for Global Health initiative involving course work and a three week immersion experience in a rural health clinic in Ghana. The interdisciplinary team included faculty and students representing medicine, nursing, physician assistant and public health. Our roles involved cultural interface with the community and assisting the doctors and nurses in the Jesse Rohde Foundation Clinic. The team gathered demographic data, performed health assessments of community members and provided educational sessions related to health promotion, disease prevention and risk reduction.

Needs:

Health Promotion through educational empowerment and risk reduction are pivotal strategies used in caring for underserved populations. Education is an essential component of the nurse's role facilitating empowerment, choice and change. Underserved rural communities are at increased risk for variations in individual and population/community health. Variables impacting risk are scarcity of health care providers, lack of resources, cultural dissonance, personal factors, political unrest and environmental issues. This proposal presents a Toolkit for facilitating student success when participating in a Global Health Initiative. Exemplars and lessons learned from the Ghana Health Initiative are included.

Designing a Water Chamber to Optimize 3D Protein Imaging

Student Name: Peter Ghali
Faculty Mentor: Dr. Niharika Nath
Department: Life Sciences

The goal of the project is to reproduce relative humidity in order to complete the design of a humidity controller. I was assigned the task of optimizing a preliminary design of a water chamber. Completing this will give us the ability to combine dry and saturated helium gas together; doing so would generate humidity as specified by the user, furthermore once humidity is created the dew point temperature from the chilled mirror sensor can be obtained. A sample water chamber, where the main generation of the saturated helium is found, was developed using AutoCAD. In order to make sure we have the proper dimensions, calculation of volume and ideal gas law allowed us to understand the behavior of helium gas under the conditions it will undergo, to ensure that the flow rate of gas is at a functional level. Once the water chamber is finalized, developed and assembled, humidity can be generated. This is done by a divided-flow of helium. Helium is introduced by pumping the gas into the temperature controlled water chamber, through a porous material, known as a frit, which generates air bubbles. As these bubbles begin to rise they maximize the saturation level producing water vapors. The water chamber was built and a sample test was conducted, and it successfully worked and achieved specifications. The dew point that was output was in the acceptable range of the parameters for the project. As a result of controlling the hydration of samples during X-ray scattering, the properties of different samples can change under certain conditions. Allowing us to further understand the effects of certain temperatures on samples.

La Vida De So Los Muertos (The Life of the Dead)

Student Name: Jonathan C. Greco
Faculty Mentor: Robert Sherwin
Department: Communication Arts

La Vida De Los Muertos is a collection of photography that is meant to illustrate the lives of those who have passed on. By utilizing masks typically worn for the Spanish holiday “Dia De Los Muertos”, I aim to show the passions of the dead by having models act out their normal, everyday activities, all while wearing a mask.

I hope that this project can maybe do for others as it has done for me. Help to understand the grieving process and the uncertainty of what lies on the other side of death.

Imagine Academy Masquerade Promo

Student Name:	Jabari Clarke-Pennegan
Faculty Mentor:	Jody Saslow
Department:	Communication Arts

Last semester, I was asked to film a charity fashion show for an event planning class at NYIT. I filmed the fashion and made an edited video with music. The video was a big hit, so much so that the make-up artist who did the make up for the fashion show, asked if I would be willing to donate a video for a school in Brooklyn that specializes in the education of Autistic children.

The school Imagine Academy, was having a masquerade ball and wanted to promote it. The concept was to be masked ballet dancers presenting the space in which the event was to be held. I filmed the video by myself, doing all the camera and dolly work on my own, while those involved in the production on behalf of the school, collaborated with me on what ideas they had for the video. I also did all of the editing and motion graphics seen in the video myself.

The Effect of the PostureJac Stabilization on Lower Abdominal Endurance

Student Name:	Justin Chilesky, Denise Crooks, Chris Estafanous, Christopher Horan, Dalwoo Lee, Jessica Matarrese, Julie Vancour and Michael Wirth
Faculty Mentor:	Dr. Howard Makofsky
Department:	Physical Therapy

The purpose of this single-blinded study was to evaluate lower abdominal endurance by creating a new measurement standard. The study observed the correlation between abdominal endurance and the effect of the PostureJac in stabilization of the lumbo-pelvic region. The study consisted of 60 subjects (ages 18-35) performing the Lower Abdominal Test for Endurance (LATE). The subjects were randomly divided into one of four groups: arms across chest, overhead stabilization, stabilization at the subjects' side and stabilization using the PostureJac. Each subject performed three trials of their assigned group with at least a 15 minute rest in between each trial. The final data consisted of an average of the three trials. An ANOVA and Posthoc analysis were conducted and concluded that results were not significant; however results were trending towards significance in the overhead and PostureJac stabilization groups. More research may be required to further determine the most effective position to evaluate lower abdominal endurance and to guide lumbo-pelvic stabilization exercises using the PostureJac.

Wish Upon a Star

Student Name: Eizle-Bern Galang
Faculty Mentor: Jody Saslow
Department: Communication Arts

This short, MTV-esque music video highlights the New York Institute of Technology's recent fashion show, spotlighting the many fashions of NYIT graduate Asli Parlak. Set to the dynamic beat of the Goldhawks' *Keep the Fire* and sponsored by the school's Special Events class (courtesy of professor Rob Seitz), *Wish Upon a Star* quickly follows the students/models from make-up to runway, with teases of pre-show setup and audience arrival.

Advertising Campaign for Applegate Farms

Student Name: Jenelle Richards-Davis, Aiche Sissoko, Jie Gu and Sijia Xie
Faculty Mentor: Youjeong Kim
Department: Communication Arts

Our group created an advertising campaign (print AD) for the organic meat company, Applegate Farms. This company provides meat that is free of antibiotics, hormones, fillers, gluten and they take pride in the way they feed and raise their animals. The company admittedly spends more on providing high-quality meat than they do on marketing, so we came up with a campaign that would match their standards of providing healthier meat to the public; while also expanding their consumer base.

Using Photoshop, we first designed an ad for the company that would be the basis of the campaign. The ad featured a visual of a piece of meat with a tree growing inside that resembled the marbling that is in pieces of red meat. We wanted to relay the healthfulness of Applegate Farms meat and equate the meat to nature. Next, we created a television ad featuring two women sharing lunch. One woman is refraining from eating meat due to following a strict diet. The other woman explains how Applegate Farms' meat is much different from other meat products and can be eaten by those who are very health-conscious.

Along with the visual aids, we researched and discussed the appropriate audience for Applegate farms and devised a strategy that would allow them to reach both families and also those that have decision-making power in the food industry. We also partnered the company with organizations devoted to providing healthier meals in school cafeterias.

We are all very proud of this project and we are confident it would not only make a great submission to the Source; but it would also be a great campaign for Applegate Farms; or any other organic food company, if we were given the opportunity.

Molecular Phenotypes of Neocortical Malformations in C57BL/6J Mice: An *In Silico* Analysis Using the Allen Brain Atlas

Student Name: Elsaid Salem, Elizabeth George, Dhruv Patel and Paulina Guta
Faculty Mentor: Dr. Raddy Ramos
Department: Neuroscience

A diverse number of neocortical malformations are observed in humans and often arise from defective neuronal migration during fetal and early postnatal periods. Whether caused by genetic mutation, injury, or environmental insult, neocortical malformations are a significant risk factor for intellectual delay, life-long cognitive impairment, and/or epilepsy. Therefore, greater understanding of the anatomical and physiological changes that characterize neocortical malformations have broad and significant implications for affected individuals.

Molecular layer heterotopia (MLH) are small malformations seen in the neocortex of individuals with dyslexia and epilepsy. These heterotopia are characterized by collections of dozens to hundreds of cells in the molecular layer (layer I) though the precise phenotypes of cells in these malformations is poorly understood. C57BL/6J mice also have MLH with identical cytoarchitecture to that seen in humans, providing a model for greater study of the cellular constituents of these malformations.

In the present report we describe our use of the Allen Brain Atlas to reveal the molecular phenotypes of cells within MLH in C57BL/6J mice. We demonstrate a diverse group of both neural and glial cell-types in MLH. These data are relevant toward greater understanding of MLH in humans.

The Circulatory System: The Anatomy and Evolutionary Development of the Human Circulatory SystemVersus that of the Thescelosaurus Dinosaur

Student Name: Aisha Aziz, Reetu Sondhi, Jennifer Ardila, Aleeya Setaruddin and Fadila Radoncic
Faculty Mentor: Dr. Claude E. Gagna
Department: Life Sciences

The theory of evolution is supported by evidence supported with comparing anatomical features of different organisms as in the case of comparing the circulatory system of a human being with that of the Thescelosaurus dinosaur. Since Earth first formed, countless creatures have come and gone. Dinosaurs and other types of land and sea animals all fell prey to climatic shifts, food storages, and myriad other environmental factors. However, one species, human beings, survived the most recent millennia of evolution by adjusting to change in climate and moving when food was scarce. The primary reason human beings were able to do this is that they possess a complex and adaptable brain and body. The circulatory system works properly in the human body to result in an intricate and extraordinary living machine.

A fossilized dinosaur heart was recently discovered. The heart belongs to a late Cretaceous Period plant eating ornithopod dinosaur known as Thescelosaurus. The heart reveals a four-chambered heart and a single systemic aorta similar to the heart anatomy arrangement found in mammals describing it more like a human heart than that of a reptile. It is believed that the sixty six million year old Thescelosaurus dinosaur was a warm-blooded animal. The analysis of the heart was taken upon using a computerized tomography (CT) scan to let paleontology researchers further investigate the heart phenomenon.

The evolution of human beings has led to conclude to the fact that the circulatory system is a complicated structure that provides blood to circulate properly. It is difficult to believe or even think that humans in some anatomical way relate to the Thescelosaurus dinosaur. Paleontology is based on comparative anatomy between extant and extinct organisms as seen in the comparison between human and Thescelosaurus. Researchers have named the Thescelosaurus as Willo, the dinosaur with a heart, in which further analysis is being examined and studied to fully understand the species heart anatomy.

Comparison of Gran Plot Method and the Dsnlls Method Using Potentiometric Titration

Student Name: Aisha Ashfaq and Fateha Ahmed
Faculty Mentor: Dr. Grady Carney
Department: Life Sciences

The objective of this lab is to do potentiometric titration of chloride and to determine the equivalence point of titration using electrical potential signals of an electrochemical cell. To detect the endpoint we compared two methods; Gran plot method and the dsnlls. The grand plot method used the Front or the backside of the titration curve to determine the endpoint. Dsnlls method uses a direct non-linear least square method to determine the equivalence point.

The endpoint in this titration is observed when the NaCl solution turns strawberry pink. However in a potentiometric titration we continue to titrate even after reaching the endpoint (pink color) because we need to obtain an S like shape of the titration curve so that we can find its center as well as its equivalence point.

Love, Lost, Found

Student Name: Michael DeNiro and David Roberts
Faculty Mentor: Dr. Dena Winokur
Department: Communication Arts

Love, Lost, Found is a three minute short film that features a love story between a boy and his skateboard, until one day things get complicated by an unwelcome girlfriend making the skateboard doubt their relationship and slip into a depression. Shown through the skateboards perspective by the use of subjective camera angles this short film turns an ordinary object into an organic character.

Stereochemical Elucidations of Organophosphorus Pesticides via Chiroptical Methods

Student Name: Qurratul Jameel
Faculty Mentor: Ana G. Petrovic
Department: Life Sciences

The environmental significance of chirality in organophosphorus pesticides (OPs) is currently of great interest[1,2]. All the OPs used in agriculture are applied in their racemic forms but the enantiomers usually differ in their biological activities, and degradation processes and it is of extreme importance to isolate them enantiomerically pure and define their chirality. Knowledge of the stereochemistry, that is, the Absolute Configuration (AC) of OPs is essential in furthering their utility as insecticides/pesticides with minimal adverse consequences on human health and overall ecosystem wellbeing.

The goals of this research project are to isolate the enantiomeric couples of several chiral OPs (ex. leptophos and phenamiphos) and employ sinergy of three chiroptical spectroscopic methods (ORD, ECD and VCD) in order to reliably estalish the AC as well as predominant conformations of the selected OPs. More specifically, chiroptical elucidations will involve complementary experimental and *ab initio* quantum mechanical (QM) studies, as this combined approach[3] has been demonstrated as robust and reliable means for establishing the AC for a wide variety of organic molecules. To the best of our knowledge, only few chiroptical investigations relying on this combined approach have been previously applied to this class of compounds. In this context, our chiroptical efforts will not only unveil the AC of the target OPs, but will also provide an assessment of: a) which chiroptical method gives the most dependable and cost-effective AC assignment for OPs; and b) for which case-studies is the complementary use of more than one method desirable.

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The Characterization of Alternative DNA Structures in Xeroderma Pigmentosum Genes

Student Name: Sarah Syed, Justine Chen, Dibnain Nanda, Priya Nanda and Midath Habeeb
Faculty Mentor: Dr. Claude E Gagna
Department: Life Sciences

Xeroderma Pigmentosum (XP) is an autosomal recessive genetic disorder in which the ability to repair damaged DNA caused by ultraviolet light is deficient. People who suffer from this disorder suffer from an increased risk of developing skin cancer due to lack of DNA repair. Less than 40% of patients with XP survive longer than 20 years. Z-DNA is an alternative form of the more common right-handed ds-B-DNA. Researchers believe that this alternative type of nucleic acid plays a role in gene expression, viz., transcription, genetic recombination, and RNA editing. As part of the Biomedical Research group, we have employed highly sophisticated DNA-based bioinformatics to characterize the potential of left-handed double-stranded (ds-) Z-DNA sequences in XP genes. We utilized the Z-Hunt computer program software, which located sequences of Z-DNA (i.e., potential for ds-B-DNA to Z-DNA conversion) in genes with left-handed B-DNA. We gathered genes and protein coding of different species, varying from *Drosophila melanogaster* to *Homo sapiens* from the PubMed database. We first searched the PubMed database for XP related genes. After the initial search, we took specific genes and looked up the GenBank sequence. We then took the sequence and placed it into MS word to remove excess spaces and numbers. Next, we placed the edited DNA sequence in notepad and saved it. We uploaded the document under the Z-Hunt computer program software to locate the DNA sequences and hits of potential Z-DNA along with specific locations. We found that there were multiple locations where there were hits for potential Z-DNA segments on the *Homo sapiens* chromosomes. There were also multiple hits for the *Drosophila melanogaster* and *Danio rerio*. Based upon our initial results, *Danio rerio* had a more Z-DNA hits compared to *Homo sapiens* and *Drosophila melanogaster*. Employing the data from bioinformatics studies of potential Z-DNA sequences will better enable research scientist and physicians to treat and/or cure XP.

Cell Counting of Normal Human Epidermal Tissue

Student Name: Aleshaw Dinaram and Mohammed Islam
Faculty Mentor: Dr. Claude E. Gagna
Department: Life Sciences

In order to examine the process of cell death [apoptosis and denucleation (terminal differentiation)] our group of Biomedical Research I students, here at NYIT, performed cell counts involving normal human skin, namely, the epidermis. We examined some of the different layers of the human epidermis: stratum basale, stratum spinosum, and stratum granulosum. Before we began performing cell counts we were lectured on the histology and molecular biology of normal skin. We used light microscopes under oil immersion, 1,000x, to perform all the cell counts. We also performed cell counts on specialized cells such as “bleb cells” and melanocytes. All data was averaged out among the group members. This is a part of a long term study in which our mentor, Dr. Claude Gagna, is looking at the distribution of different types of nucleic acid molecules: right-handed double-stranded B-DNA, left-handed ds-Z-DNA and single-stranded DNA. These many different types of nucleic acids are being characterized in both normal and diseased (e.g., melanoma) tissues. Our group is helping by performing cell counts on control tissues from an area near the melanoma target sites, in which the biopsy was removed. Understanding the basic molecular biology of the human epidermis will help others more clearly understand how cell death and cancer work.

Microbial Energy Solutions

Student Name : Ronika Sethi
Faculty Mentor: Dr. Niharika Nath
Department: Life Sciences

Fossil fuel supply is diminishing over time. Biofuel cells are beneficial for the economy and the planet because they are a source or renewable energy and in the long run, cost much less to use as compared to gas and electricity. A fuel cell provides a renewable form of energy and Biofuel cells are energy producing set ups that consist of two electrodes separated by a cation-permiable membrane. Various fuel cell designs use different catalysts and reactions to achieve the desired flow of electrons and hydrogen ions.

We will present a theoretical model to solve the issue of energy. Our way of solving this problem is developing a microbial fuel cell. Our design should be able to power houses and buildings, eventually expanding to power whole cities. Our theoretical design produces long lasting, efficient, and inexpensive microbial fuel cells which will produce clean and renewable energy. We plan on using the bacteria *Geobacter sulfurreducens* to aid in conducting electricity through natural processes in the fuel cell.

We theoretically designed this fuel cell by searching different bacteria's and using chemistry to determine how efficient they are in conducting electricity. We also had five advisors for this project. Our chosen advisors specialized in chemistry, biology, *Geobacter sulfurreducens,* or fuel cells and guided our project and success. We were able to make a timeline budget for our company. Our theoretical project included a $3 million budget over the course of three years.

Our proposed bio fuel cell design has two water-containing chambers separated by a cation-permeable membrane. In one chamber the bacteria catalyzes the oxidation of acetic acid (HC_2H3O_2) on an anode. In the other chamber the bacteria catalyzes reduction of oxygen (O_2) into water (H_2O). H+, which is a product of the oxidation of the acetic acid, traverses the cation-permeable membrane and reacts with O_2 to form H_2O. This reaction requires the electrons freed from the acetic acid when H+ is produced, but these electrons cannot travel through the cation-permeable membrane, so they are transferred to the other chamber through copper wires. This transfer creates an electrical current in copper wire, which can be tapped for energy. Simultaneously, another reduction-oxidation reaction occurs, glucose is oxidized by the *Geobacter sulfurreducens* and the reaction produces Hydrogen, electrons, and ATP (adenosine triphosphate). These electrons will also travel from the first chamber to the second chamber through copper wires, which will create another electrical current to be tapped for energy while the hydrogen atoms pass through the membrane to produce more water.

Visual Culture ???

Student Name: Corey-Dwayne Lewis
Faculty Mentor: Susan Landgraf
Department: Communication Arts

> "To see is a process of observing and recognizing the world around us. To look is to actively make meaning of that world… Through looking we negotiate social relationships and meaning… much like speaking, writing or singing. Looking involves learning to interpret… relationships of power." (Cartwright & Sturken, 2002, p. 10)

What correlations are there between our "visual culture," - the images we consume via television, billboards, editorials - and our moral and social psyche?

The images that surround us impact how we interpret the world, our values, heroes and ambitions and aspirations. My submission will be a series of 20th century iconic visuals altered to represent a more diverse populace. How would these visuals be presented today in a more tolerant commercial atmosphere?

In presenting these works I hope to illustrate a historical correlation between American popular visual culture and identity (race-identity, sexual-identity, body-identity…etc).

Nirvana

Student Name : Saila Mukta and Crystal Haroon
Faculty Mentor: Lois Navia
Department: Social Sciences

These artworks delineate the tenets of Asian philosophy and theology in microcosm: the concepts of Yin and Yang, Confucian ideals, Taoist and Buddhist philosophy are all imbibed into our pieces through various mediums, including pastel and colored pencil. Other components of Asian culture, spanning from China to India, will be displayed in our artwork. Furthermore, by creating several pieces that are unique yet connected, we hope to display the commonalties between these different Asian cultures. Although these cultures have evolved becoming vastly different over time, they all share common origins.

Demo Studio Showcase

Student Name:	David Cole, Vaughn Sams, Caprica A. Stanley and Michael Robertson
Faculty Mentor:	Youjeong Kim
Department:	Communication Arts

As one of our most recognized projects, we produced about 18-minute talk show in the studio. Here, we interviewed a tremendous actor that has been in multiple short films. He planned to be in more roles but could not find the recognition he needed in order to reach out to others who are in need of actors. That's where we came in and helped change that around. Like many others out there, we know what it feels like to have something worth showing the world but not enough recognition to do so. This showcase is meant to inform people of a useful medium that will help directors, actors, and anybody else for that matter, get their projects out there and into the eyes of a wider audience. No matter what the message may be, we are here to help spread that message like wildfire.

Subway Tunnel Set Design / Build / Lighting

Student Name: Andrew Hankins
Faculty Mentor: Christopher Geiser
Department: Communication Arts

Students are working collaboratively on the build out of a design by student Andrew Hankins, with an end of semester shoot planned on the set. The set is being built from foam board and decorated as completely as possible. Each week the team builds out additional elements of the set, solve design and build issues, and plan effective lighting illustrating the concepts taught about depth, separation, and overall cinematography principles.

Automobile Advertising: A Creative's Dream

Student Name: Jenniffer Alban, Alex Bennett, and Max Behr
Faculty Mentor: James Wyckoff
Department: Communication Arts

The love affair that men and women around the globe have with the automobile is well documented in advertising literature. Every ad agency wants an auto account. Every copywriter yearns to write copy as a paean to sleek lines, peak performance and the ultimate in luxury, at least once in their careers. Three young and aspiring creatives, Jenniffer Alban, Alex Bennett, and Max Behr created a multimedia ad campaign on the Chrysler 300, Dodge Challenger, and Porsche, respectively, and the Communication Arts department's Advertising Copywriting class. Their work will be displayed, and they will discuss the process by which it was created.

United We Stand: New York State Nurses Association Lobby Day
Preparing Nursing Students for Political Activism: Applied Action Research

Student Name:	Karine Nelson, Tesha Bonner, Hero Pamnani, Winola See Wing To, Lino Jacob, Malaura Rosselli, Dershawn Sibbles, Margarita Koutsouras, Rowena Mohabir, Sayanna Hilaire, Jessica Guglielmoni, Junie Philitas, Lianna Jackson, Regina Vilsaint, Jasmine Sancho and Samantha Nicole Davis
Faculty Mentor:	Dr. Susan M. Neville and Dr. Cheryl Zauderer
Department:	Nursing

Political Activism for health care workers is a crucial complement to clinical practice. Nurses are in a unique position to not only provide bedside care but also to advocate for change within the political arena and the community at large. Preparing professional nursing students for community-based practice involving political activism and civic engagement requires developing and sustaining a philosophy that supports service learning and community partnerships. The concepts of service, community, collaboration, empowerment, advocacy and political activism are essential foundational concepts. These concepts are inherent in educationally preparing future nurses to meet the healthcare needs of individuals and communities. Many nursing students, however, seem either intimidated by or uninterested in the political aspects of professional nursing practice. The senior class each year attends the NYS Nurses Association Lobby Day where class representatives prepare talking points that support specific legislation impacting the profession and meet with selected members of the NYS legislature to present their collective views. Each poster specifically documents the applied research process that is involved in this project. A published peer reviewed article documents the educational strategy involved in this collaborative faculty/student capstone experience. Students selected to focus their projects this year on supporting the future of nursing by requiring all RN's to earn a bachelor's degree within 10 years of licensure, addressing workplace bullying, establishing minimum nurse to patient staffing ratios in acute care facilities and requiring facilities to establish safe patient handling policies to reduce lifting injuries among nurses.