Conference Schedule
Saturday, April 17, 2010

Please see abstract section of this program for abstracts of presentations. All project titles and abstracts are printed as received.

Poster Session I · 10:00-11:00

Lecture Center Hallway (by LC 30-LC 31)

Andrew Byrne
"The Effects of Amyloid Derived Diffusible Ligands on Anxiety, Fear Motivated Learning, and Insulin Signaling in the Amygdala"

Cyndel Carreau
"Can the Increased Activation of Rheb by Reactive Oxygen Species Cause Insulin Resistance and Alzheimer's Disease Pathologies?"

Stacey Farmer #
"Alternative Treatment Delivery Systems: A Randomized Clinical Trial Evaluating the Effectiveness of ACT in the Treatment of Generalized Anxiety Disorder"

Jeremy Gold
"The Effect of Tone Height on Pitch Recognition in a Two Tone Context of Consonant and Dissonant Intervals"

Jeffrey Knaack

Erika Kneeland **
"Respiratory Sinus Arrhythmia Functions as a Buffer Against Effects of Harsh Parenting"

Diana Landy
"Why Disabled Children are at Higher Risk for Maltreatment: A Review of Current Literature"

Kimberly Moonan
"The Relationship between Monitoring and Adolescent Alcohol Use"

Mark Nelson
"Libraries and Librarianship of the Late Victorian Era"

Justin Ramcharitar
"Effect of Recurrent Hypoglycemia on Mental Flexibility"

Michelle Stiles **
"Neuropsychological Performance in Cannabis Users and Non-Users Following Motivation Manipulation"

Harold Watson
"Wt-1 & Klumfuss Zinc Finger 1 Protein Sequence"

Provost’s Welcome and Awards
11:00-11:30
Lecture Center Hallway (by LC 30-LC 31)

Poster Session II · 12:00-1:00

Lecture Center Hallway (by LC 30-LC 31)

Jane Daquin
"Identifying and Measuring of Self-control"

Allyson Delprino
"The Role of Progesterone in Affective Behavior in a Mouse Model of Autism"

Michael Karass
"The Effects of FAK Inhibition on Focal Adhesion Assembly in the Cleft Regions of Submandibular Salivary Glands"

Josh Kohn
"Focal Adhesion Kinase May be a Key Mediator of Signal Propagation in a Positive Feedback Loop During Branching Morphogenesis"

Jayson Kratoville
"To Fight or Not to Fight: The Dynamics of a Choice"

Jocelyn Laboy
"Developing a Redox-sensing GFP Promoter Construct"
Poster Session II · Cont.

Laura Mariconda **
“The Role of the Par Complex in the Development of the Retinotectal Map in Zebrafish”

Caitlin Norton
“Genetic and Environmental Variation in Resistance to *Providencia Retgeri*”

Gregory Pruden
“The Economics of Rankings: Establishing an Efficient Composite Ranking System”

David Tedeschi
“The Role of Progesterone in Social Preference Behavior in a Mouse Model of Autism”

Brian Wade
“The Impact of Confession Evidence on Life and Death Sentence Decision-Making”

Oral Presentation Session I · 12:30-1:45

Moderator: Kimberly Moonan

Elizabeth Carro
“American Influence on the Irish Conflict”

Dylan Depice
“Poor, Nasty, Brutish, and Altruistic: Political Theory from an Evolutionary Perspective”

Kristin Dodson
“Voter Stereotypes in Campaigns”

Danielle Lamak
“Election Reform: Can it Solve the Problem of Low Voter Turnout?”

Oral Presentation Session II · 12:30-1:45

Moderator: Cyndel Carreau

John Nardi **
“The Effect of Mutual Fund Size on Index-Adjusted Returns”

Steven Newton
“Do Hedged Mutual Funds Hedge?”

Valerie Sourbeer
“A Comparative Analysis of Four United States Banking Regulators, 1987 to the Present”

Oral Presentation Session III · 1:00-2:15

Moderator: Diana Landy

Daniel DaCosta
“5α-reductase Inhibitors Decrease Proliferation in Prostate without Altering Sexual, Anxiety, and/or Cognitive Behaviors of Male Rats”

Fareed Haddad
“The Anti-Epileptic Drugs Phenytoin and Valproate Produce Reproductive Endocrine Dysfunction Among Female Rats”

Francelina Morillo
“The Role of the Phosphatidyl Inositol 3 Kinase in the Development of the Retinotectal Map in Zebrafish”

Oral Presentation Session IV · 1:00-2:15

Moderator: Olivia Meunier

Elizabeth Carro
“American Influence on the Irish Conflict”

Trisha Hahn
“Tree Huggers to Terrorists”

Thomas Rivera **
“Tax Policy Implications for Inter-State Migration”

Oral Presentation Session V · 2:15-4:00

Moderator: Roopa Bhopale

Evan Ginsberg
“Measurement of Single Cell Activity Using a Picocalorimeter”

Jamey Greenough
“New York State Cell Phone Driving Law Awareness Campaign”

David Kim

Lucy Place
“Implications of Drug Narrative in Fall 2009 Primetime Television Dramas”
Oral Presentation Session VI · 2:15-3:30
LC 12
Moderator: Steven DeBraccio

Fraulin Joseph
“Proteins And Pathways That Modulate The Toxicity of The Chemotherapeutic Drug Carmustine”

Rebecca Kriss
“Affordable Cost, Expensive Aftermath: An Environmental History of Levittown, New York”

Dana Schiffman & Ashley Tate
“Did you get “Swine” in 2009?: How the University Website Influenced Student Awareness of the H1N1 Pandemic”

University at Albany
Undergraduate Research Awards

Provost Award Recipients

Dylan Depice
“Cooperation and Altruism: Intrinsic Mechanisms of Self-Interest.”

Stacey Farmer
“Alternative Treatment Delivery Systems: A Randomized Clinical Trial Evaluating the Effectiveness of ACT in the Treatment of Generalized Anxiety Disorder.”

Karen Torrejon
“Synthesis Optimization and Characterization of T3 Encapsulated Chitosan-PLGA Nanoparticles and Their Effect on Angiogenesis.”

Provost Award Honorable Mention

Jason Behnke
“Bacterial Growth Inhibition of Nanomaterial-Modified Fabrics.”

Nicole Cappucciti
“Imaginary Attachments and Wonderful Expressions: Misguided Purposes of Marriage in 19th Century British Literature.”

Steven DeBraccio
“The Legality of Solitary Confinement.”

Neelam Gera
“Analysis of Internal Tension of DNA Kissing Complexes through Florescent Resonance Spectroscopy.”

Barbara Graham
“Bioengineering Tissue Constructs Using Elastic Alginate Hydrogels.”

Erika Kneeland
“Respiratory Sinus Arrhythmia Functions as a Buffer Against Effects of Harsh Parenting.”

Laura Mariconda
“The Role of Par Complex in the Development of the Retinotectal Map in Zebrafish.”

Kaitlin McGrath

Jonathan Nardi
“The Effect of Mutual Fund Size on Index-Adjusted Returns.”

Thomas J. Rivera
“Tax Policy Implications for Inter-State Migration.”

Michelle Stiles
“Neuropsychological Performance in Cannabis Users and Non-Users Following Motivation Manipulation.”

Partial Funding for the Undergraduate Research Conference is Provided by the University Auxiliary Services
Conference Schedule

Sunday, April 18, 2010

Please see abstract section of this program for abstracts of presentations. All project titles and abstracts are printed as received.

Poster Session III · 10:00-11:00
Lecture Center Hallway (by LC 30-LC 31)

Jerehme Bamberger
“Conservative Populism in Upstate New York: Questioning the Connections Between Ideology and Structure”

Jason Behnke **
“Bacterial Growth Inhibition by Nanomaterial-modified Fabrics”

Roopa Bhopale
“Towards a Deeper Understanding of the Use and Effectiveness of Human Resource Dashboards”

Estrella Carchichabla
“Impediments to Policing Reform in Argentina and Brazil”

Vanessa Costanzo
“The Role of Progesterone Receptor in Development of Medial Prefrontal Cortex and Impulsive Behavior”

Neelam Gera **
“Analysis of Internal Tension of DNA Kissing Complexes through Fluorescent Resonance Spectroscopy”

Barbara Graham **
“Bioengineering Tissue Constructs Using Elastic Alginate Hydrogels”

Sam Hyland
“New York State Educational Policy and Financing: An Examination of Public School Privatization”

Brendan Lantz
“Determinants of a Victim’s Decision to Report Following Violent Victimization”

Kimberly Loneck
“The Impact of the Charge Location on the Capture of Dipolar Molecules by Charged Airborne Particles”

Christopher Philippo
“Alfred Hitchcock’s Lost Beginnings: Paper and Glass Fragments of the Missing Films of the Master of Suspense”

Karen Torrejan
“Synthesis, Optimization and Characterization of T3 Encapsulated Chitosan-PLGA Nanoparticles and Their Effect on Angiogenesis”

Oral Presentation Session VII · 10:30-11:45
LC 11
Moderator: Nicole Cappuccitti

Amanda Boyd
“John Donne’s Love Poetry: The Expression of Love through the Struggle for Power in Male/Female Relationships”

Emmelia Krontiris
“Bipolar Cultural Complexes: Human Experience as the Interaction between the Arts and Sciences”

Joseph Sturcken
“Tragical History” and “Tragedy” as Inquisitive Vehicles: Examining the Implications of Marlowe’s Two Faustus Texts

Oral Presentation Session VIII · 10:30-11:45
LC 12
Moderator: Thomas Rivera

Monique Gaston
“Domestic Violence in the African American Community”

Yael Gavrasky
“Pathways from Child Maltreatment to Conduct Disorder: The Role of Mediating Variables”
Oral Session VIII Continued:

Rolando Valentin
“Sociology of Superheroes: An Analysis of Race in Society as Seen in Comic Book Pop Culture”

Oral Presentation Session IX · 11:00-12:15
LC 13
Moderator: Cyndel Carreau

Sam Centanni
“Function of ROCK in Regulation of Tissue Polarity in Developing Salivary Glands”

Erden Goljo
“Effects of Environmental Rigidity on the Development of Mouse Submandibular Glands”

Daniel Leonard
“Rac GTPase is Required for the Formation and Maintenance of Cell-Cell Junctions and Regulation of Cell Polarization During Embryonic Salivary Gland Development”

Oral Presentation Session X · 11:00-12:15
LC 14
Moderator: Steven DeBraccio

Matthew Chen
“Progesterone Receptor and its Relationship with GAD in the Developing Male Mouse Brain”

Elizabeth Kardas
“Telomerase and Disease Associated Mutations”

Julita Patrosz
“Constructing a Fluorescent System for Manipulating PIP2 Concentration in the Plasma Membrane of Xenopus Oocytes”

Oral Presentation Session XI · 12:00-1:15
LC 11
Moderator: Yael Gavronsky

Olivia Meunier
“Fantasies of Freedom: Human and Feminine Potential According to Charlotte Perkins Gilman and Kate Chopin”

Tiffany Parkhurst
“Amy Beach: An American Composer”

Maxwell Patterson
“Mind Games: The Quest for Flow in Video Games and Gravity’s Rainbow”

Ashley Strang
“The Mad Truth of Testimony within Dostoevsky’s Notes from the Underground”

Oral Presentation Session XII · 12:00-1:15
LC 12
Moderator: Nicole Cappuccitti

Hanmi Choi
“Narcissism in Advertisement”

Ryan Gallagher
“A Situation for Revolt: A Study on the Situationist International’s Influence on Radical Student and Worker Groups of France during the Revolt of 1968”

Kaitlin McGrath

Oral Presentation Session XIII · 12:30-1:45
LC 13
Moderator: TBD

Donald DeRosa
“Development of Porous Silicon Electrodes for Supercapacitor Applications”

Derek Mallia
“Flash Flood Events Associated with Northeastern Cutoff Cyclones”

Scott Sidoli
“Deformations of Certain Representations of Low Rank Lie Algebras”

Partial Funding for the Undergraduate Research Conference is Provided by the University Auxiliary Services
Oral Presentation Session XIV • 12:30-1:45
LC 14
Moderator: David Kim

C. Belfiglio
“Effect of Usability of User Interfaces on the Functionalities of Software Applications”

Steven DeBraccio **
“The Legality of Solitary Confinement”

Tim Gudlewski
“An Allegory of the Soul — Narrative Versus Meaning in the Seventh Symphony of Louis Spohr”

Oral Presentation Session XV • 1:30-2:45
LC 12
Moderator: Julita Patrosz

Nicole Cappuccitti **
“Imaginary Attachments and Wonderful Expressions: Misguided Purposes of Marriage in 19th Century British Literature”

Emmette Hawkins
“Chapel House: A History”

Candice Mann
“Forgetting to Remember, Remembering to Forget: The Struggle to Recall Happy Memories”

Oral Presentation Session XVI • 1:30-2:15
PAC 213
Moderator: TBD

Nellie Rustic
“Francesca Caccini: The Music. The Woman”

University at Albany
Undergraduate Research Awards

Recipients of the Presidential Award for Undergraduate Research

Amanda Boyd
“John Donne’s Love Poetry: The Expression of Love through the Struggle for Power in Male/Female Relationships”

Sam Centanni
“Function of ROCK in Regulation of Tissue Polarity in Developing Salivary Glands”

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“The Role of Progesterone Receptor in Development of Medial Prefrontal Cortex and Impulsive Behavior”

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“The Mad Truth of Testimony within Dostoevsky’s Notes from the Underground”

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Andrew Byrne, “The Effects of Amyloid Derived Diffusible Ligands on Anxiety, Fear Motivated Learning, and Insulin Signaling in the Amygdala,” Independent Study Project, Psychology. Project Advisor: Dr. Ewan McNay

ADDLs are an oligomeric species of the amyloid protein which is widely associated with the pathogenesis of Alzheimer’s Disease. The method by which they impair neuron function is by interfering with insulin signaling resulting in decreased glucose metabolism. ADDLs thus cause cells to require more insulin to maintain normal metabolism suggesting Alzheimer’s Disease is a form of insulin resistance in the central nervous system, not unlike Type 2 Diabetes Mellitus. ADDLs effects on spatial and declarative memory have been explored extensively but its effects on emotion and affective learning are not fully understood. A rodent model targeting the amygdala was used so study ADDLs effects on emotion because of associations with emotional states as well as its role in memory formation. Utilizing both behavioral and biochemical techniques allowed for better characterization the effects of Alzheimer’s Disease on emotion.


Insulin resistance has been associated with a decrease in memory-related learning, impaired amyloid-beta processing, and an overall increased risk for the development of Alzheimer’s disease. Insulin resistance is thought to be caused in part by the increased activation of the target of rapamycin complex TORC1 and its downstream target S6K1; activation of the TOR pathway leads to serine phosphorylation and inactivation of the insulin receptor substrate IRS-1. Ras homolog enriched in the brain, or Rheb, is a small GTP-ase involved in the insulin signaling pathway downstream of Akt. Activated Rheb activates TORC1. We predict that increased TORC1 activation will be mirrored by increased Rheb activation. Currently, young adult rats are being fed high fat diet to induce obesity and replicate a diabetic condition; Rheb activation in the hippocampus will be determined. Alzheimer’s disease and Type II diabetes are also associated with increased oxidative stress. A recent paper showed that a Ras GTP-ase, RhoA, could be activated by reactive oxygen species (ROS). We hypothesize that Rheb, like RhoA, can also be activated by ROS. A state of oxidative stress will be induced in vitro and in vivo to determine if the activation of Rheb is increased.

Stacey Farmer, “Alternative Treatment Delivery Systems: A Randomized Clinical Trial Evaluating the Effectiveness of ACT in the Treatment of Generalized Anxiety Disorder” Senior Thesis, Psychology, Project Advisor: Dr. John Forsyth

Generalized anxiety disorder (GAD) is characterized by chronic and pervasive worry and is associated with significant impairment and diminished quality of life. Of all the anxiety disorders, GAD has proven to be the most challenging to treat successfully, and this understates the importance of developing and applying effective treatments for the disorder. Cognitive Behavioral Therapy (CBT) has been shown to be an effective treatment for GAD, but there are issues with getting the treatment to those suffering. A randomized controlled trial was conducted to evaluate the effectiveness of the Mindfulness and Acceptance Workbook for Anxiety (MAWA) in an international sample of individuals diagnosed with GAD. The MAWA is based on Acceptance and Commitment Therapy (ACT), a newer third wave Cognitive Behavioral Therapy, that targets core processes that are thought to underlie all anxiety disorders.


Pitch is essentially a psychological phenomenon that results from a change in format of air pressure waves (sound) into its neural interpretation. It has been suggested that the primary auditory cortex is compartmentalized in such a way, where particular neurons fire in response to particular frequencies, which we recognize as pitch. It is no understatement to say that the possibilities for differential neural networking of auditory stimuli are in abundance, and it is unknown how networks for pitch are organized. One way to answer this question is to study some of the basic variations of harmonic complexes. The purpose of the current study is to determine if tone height of the context tone has any altered effect on ability to perceive the target tone within the two-tone interval. Tone height can be defined as a function of frequency: the higher the frequency, the greater the tone height.

The convoluted period in American History from 1945-1975 known, euphemistically, as the “quagmire” of Vietnam has presented many analytical problems in U.S. Historical writing. Through my primary document based, archival research at the Lyndon B. Johnson Presidential Library in Austin, Texas I developed a topic area surrounding a general analysis of the problems in strategic planning that were occurring within the state department and Johnson's cabinet at the end of 1967 through 1968. This area includes a significant media based component, namely, a combination of reports given to Johnson by his staff (primarily Secretary of defense McNamara, but also McGeorge Bundy, Walt Rostow, and Clark Clifford), CIA documentation of the dissemination of information to the American public, and the discrepancies inherent to the actual promulgation of information about the future of the U.S. position in Vietnam.

Erika Kneeland, "Respiratory Sinus Arrhythmia Functions as a Buffer Against Effects of Harsh Parenting," Senior Honors Thesis, Psychology. Project Advisor: Dr. Elana Gordis

The purpose of this study was to examine the effects of harsh parenting and adolescents’ physiological regulation on the adolescent’s capability for adaptive emotion regulation as measured by aggression. Individual capacity for emotion regulation is influenced by flexibility of the autonomic response as well as by socialization. Social learning theory postulates that aggression is learned from the child’s role model, and several studies have indicated parental psychological aggression to be more indicative of negative developmental outcomes than physical maltreatment. Vagal tone, as measured by respiratory sinus arrhythmia, has also been linked with emotion regulation and aggression. The vagus nerve is an extension of the parasympathetic nervous system that influences heart rate. Respiratory sinus arrhythmia (RSA) is a measure of heart rate variation across the respiratory cycle and is thus used as an index of vagal tone and parasympathetic nervous system activity. Baseline measures of RSA reflect temperamental reactivity and emotionality. High RSA has been shown to be associated with greater self-reported emotion regulation and utilization of constructive coping strategies by university students.


The atrocious effects of abuse and neglect cannot be overstated. Nearly three million children were reported to have suffered maltreatment in the United States in the year 2000. (Jonson-Reid et al, 2004) Mitchell et al states that three or more children die every day from some form of maltreatment (1999). These figures probably underestimate the veracity of this issue, as child abuse and neglect often go unreported. Of particular interest to this investigation was the fact that children with disabilities are roughly three to seven times more likely to be abused than their nondisabled peers (Jonson-Reid et al, 2004; Sullivan & Knutson, 2000); I sought here to both highlight the evidence of this disturbing reality and to explore reasons why disabled children are at higher risk for maltreatment. In coming to understand an underlying cause, one can be better equipped to assist those in need, according to their individual circumstances.


This study seeks to evaluate the relationship between monitoring and adolescent deviant behaviors, with a specific focus on adolescent alcohol use. It is hypothesized that when community safety and support are low, after-school programming will serve as a protective factor. Thus, lower levels of alcohol use and deviant behaviors will be reported. Data was collected on a sample of 373 using the School Success Profile. Because research shows that adolescent-report of friend behaviors is actually more reflective of their own behaviors (adolescents project their beliefs about own behaviors onto their peers), this study uses adolescent-report on peer behaviors as an indicator of self-use. This study seeks to determine if adolescent alcohol use and other problematic behaviors are mediated or exacerbated based on adolescents’ participation in after-school programming and their perceived level of neighborhood safety and support.


A review of the overall growth and driving forces behind the rise of the public lending library in Great Britain during the latter half of the Victorian Era, this project takes a special focus upon the period between the years 1850 and 1905. Also researched are the aspects of necessary education, the role in the information gathering process, and the social status of the librarian during this period of time.
Justin Ramcharitar, “Effect of Recurrent Hypoglycemia on Mental Flexibility,” Senior Honors Thesis, Psychology. Project Advisor: Dr. Ewan McNay

A consequence of intensive insulin replacement therapy, treatment for Types 1 and 2 Diabetes Mellitus, is recurrent hypoglycemia (RH). Clinical and experimental evidence link RH to deficits in higher cognitive processes. This study investigates the effect RH has on mental flexibility. We utilized a rodent model of short term RH. Animals underwent food restriction and were extensively handled and habituated. Prior to testing animals, were induced with acute hypoglycemia. Animals were tested for mental flexibility via a set-shift maze task. Mental flexibility was significantly impaired in acutely hypoglycemic animals as compared to controls ($t=3.673; p=.029$). Post-testing, brain tissue was harvested and sectioned. Tissue will undergo immunocytochemistry and will be probed for proteins known to be altered in other brain regions either under conditions of RH or metabolic stress. In a follow-up experiment we investigated the effects of RH on brain metabolite and neurotransmitter levels during behavioral testing using microdialysis.


The purpose of this study was to examine the neuropsychological performance of cannabis users compared to non users, after inducing motivation by means of a motivational statement. It is possible that neuropsychological performance of cannabis users could be enhanced by a motivational statement, thus potentially accounting for the group differences between users and non-users that have been previously found. Participants volunteered for one hour of assessment to receive course credit. A statement designed to induce motivation was read by the examiner at the beginning of the experiment to all participants. A common field sobriety test was conducted to ensure that none of the participants were intoxicated at the time of the assessment.

Harold Watson, “Wt-1 & Klumfuss Zinc Finger 1 Protein Sequence,” Undergraduate Research Initiative Collaborative Project/Research Assistant for a Professor or Graduate Student, Biology. Project Advisor: Dr. Carla Theimer

In this study, we will use standard molecular biology techniques to clone the unique zinc finger 1 sequences of WT-1 and klu into an appropriate vector for large-scale protein expression, and purify the protein domains, for investigation using NMR spectroscopy. We have previously selected and prepared a working stock of a plasmid, cut the plasmid in preparation for ligation, and designed and ordered primers for this experiment that would be appropriate for WT-1 and Klu. The NMR studies will examine the similarities and differences between the unique klu and WT-1 zinc fingers.

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Posters Session II
Lecture Center Hallway (by LC 30-LC 31)


Self-control has been the theme of numerous studies. Researchers seek to examine the effects of self-control on how people behavior or react in different situations. While self-control theory infers that people with low self-control are prone to committing crimes, another aspect of this theory is self-control depletion. Self-control depletion regards self-control as a muscle that through extended use results in depletion, and therefore, will likely result in failure to exert self-control on any subsequent task. Self-control has been measured using several paradigms. Delay of gratification refers to forgoing a small reward now for a better reward later. Attitudinal measures ask respondents to assess themselves and report on their behavior. Behavioral measures require respondents to report on their actual behaviors. The paradigms display both strengths and limitations in the methods used to measure self control as they attempt to understand the variation in levels of self-control in individual.


Autism Spectrum Disorders (ASD) includes a wide array of developmental neurological disorders that are identified by impairments in affective, social, cognitive, and/or motor behaviors, which are sexually-differentiated and hormone sensitive. BTBR(+tf/+) (BTBR) mice appear to exhibit a behavioral phenotype for ASD-like behavior. This research will examine if administration of the hormone progesterone ($P_4$), and commonly used therapeutics, positively influence the
behavioral phenotype of BTBR and C57 mice, and what role sex differences may have in behavioral and neuroendocrine sequelae. To examine this, we will look at intact male and female BTBR and C57 mice administered P₄, and the drug Aripiprazol or vehicle (placebo). Behavioral testing will then be conducted to assess affective behavior in the open field and elevated plus maze. If it is observed that BTBR mice have abnormal affective behavior, and P₄ administration and/or therapeutics reverse this, then progesterone may have an impact on expression of ASD-like behaviors.

**Michael Karass, "The Effects of FAK Inhibition on Focal Adhesion Assembly in the Cleft Regions of Submandibular Salivary Glands," Senior Thesis, Biology. Project Advisor: Dr. Melinda Larsen**

During prenatal development, many mammalian epithelial organs utilize a developmental mechanism known as branching morphogenesis to increase the epithelial surface area for secretion or absorption. Submandibular salivary gland (SMG) branching morphogenesis begins with the initiation of clefts, or indentations, in the basement membrane surrounding the surface of epithelial buds. Such clefts then extend, or progress, toward the interior of the primary bud, with these processes being repeated multiple times to generate the complex adult gland. We hypothesize that FAK-mediated focal adhesion maturation, downstream of ROCK, is required for cleft progression. I am testing this hypothesis by examining the effects of FAK inhibition on focal adhesion assembly in the cleft regions of intact day 13 SMG organ cultures.

**Josh Kohn, "Focal Adhesion Kinase May be a Key Mediator of Signal Propagation in a Positive Feedback Loop During Branching Morphogenesis," Independent Study Project, Biology. Project Advisor: Dr. Melinda Larsen**

Branching morphogenesis is the mechanism that several mammalian organs use to augment their surface area during prenatal development. Cleft initiation and elongation, the initial steps of submandibular gland (SMG) branching morphogenesis, may be caused by localized contraction of the actin cytoskeleton and basement membrane remodeling at cleft formation sites. The cleft initiation and elongation steps will repeat over and over until a highly arborized structure has been formed. We suspect that the repetition of these steps may be caused by a series of positive feedback loops involving a signal transduction pathway between the proteins of the cytoskeleton and proteins of the extracellular matrix via β1 integrin, a transmembrane receptor protein. We are investigating a protein that is involved near the end of the signal transduction pathway, focal adhesion kinase that is suspected of reactivating proteins at the beginning of the pathway.

**Jayson Kratoville, "To Fight or Not to Fight: The Dynamics of a Choice," Senior Honors Thesis, Political Science. Project Advisor: Dr. Victor Asal**

An explosion in a busy marketplace, a full charge into enemy cavalry, or a kamikaze attack: why would anyone resort to such bloody tactics? A basic understanding of history lends itself to the assertion that if a group of people is sufficiently aggrieved, it will use force to further its agenda. And yet, there are instances where a group of people has a grievance, but one organization within that group turns to violence and another does not. This suggests that the decision to use force is not necessarily a product of the situation, as the above statement suggests, and may often be better attributed to the organizations involved. My honors thesis investigates this phenomenon in an attempt to gain a better understanding of what drives non-governmental organizations to use violence to achieve their goals.

**Jocelyn Laboy, "Developing a Redox-sensing GFP Promoter Construct," Biology. Project Advisor: Dr. J. Andres Melendez**

In previous studies, it has been identified that an element in the matrix metalloproteinase 1 promoter is extremely responsive to shifts in the otherwise steady production of hydrogen peroxide. In this project, this redox responsive component has driven a green fluorescent protein reporter construct, thus monitoring site-specific oxidant production. This construct was produced by cloning the promoter from PGL3-Basic vector into a GFP reporter plasmid (pEGFP-N1), and then sequencing and confirming its function in mammalian tumor cell lines. After transfection of HT15 and CMV cell lines, the data has yet to show that there is more of an increase in GFP fluorescence in HT15 (Sod overexpressed) cell lines than CMV cell lines. A completion of the project will involve mathematically quantifying fluorescence and using RT-PCR to further examine GFP. The long term goal of these studies is to use this redox-sensing GFP promoter construct to examine sites under oxidative stress.

**Laura Mariconda, "The Role of the Par Complex in the Development of the Retinotectal Map in Zebrafish," Senior Honors Thesis/Independent Study Project, Human Biology. Project Advisor: Dr. John Schmidt**

During development, the retina grows axons through the optic nerve into brain to form a retinotectal map that is then shaped by visual activity. Each retinal arbor makes synapses by forming trial and error branches. At retinotopic sites,
branches are stabilized and new ones added, while distant branches are deleted. We hypothesize that each branch must reassemble the polarity complex before it grows out. In axons, the polarity complex, consisting of Par3, Par6, and aPKC, is localized at the growing tip, and is required for organization. Antisense suppression of either Par3 or Par6 protein synthesis in retinal ganglion cells was developed to test its effects on retinotectal arbors in the clear zebrafish embryo imaged in time-lapse. The antisense suppression slows branch formation, but does not affect the overall size of the arbors. These changes in growth patterns indicate the polarity complex might need to be reassembled for branch formation as predicted.

Caitlin Norton, "Genetic and Environmental Variation in Resistance to Providencia Rettgeri," Work as a Research Assistant, Environmental Science/Biology. Project Advisor: Dr. McKean

I have examined patterns of resistance among 5 populations of Drosophila melanogaster at temperatures previously shown to affect immune function. Populations were sampled along the eastern coast of the United States. Resistance to the Gram-negative pathogen, Providencia rettgeri, was measured as both the ability of flies to survive infection as well as their ability to slow the control growth of the bacterial infection. I observed among-population variation in both estimates of resistance. Additionally, temperature greatly impacted resistance, with resistance increasing as temperature decreased. Lastly I found a strong correlation between both measures of resistance. To further examine why these results occurred I conducted genetic crosses between the population that seems to show the greatest immunity with the population who experienced the least. Also previously injected flies have been frozen from each initial population and their weights are currently being obtained.


Past ranking systems have contained a number of deficiencies. Whether it be establishing an artificial cardinality from a purely ordinal system, or assigning agents artificial preferences which cannot be supported, it has often been difficult to achieve an unbiased composite estimator of a ranking system without making unwarranted assumptions or artificially "compressing" the individual rankings. This research will attempt address the viability of an entirely ordinal ranking system, simplifying the wealth and diversity of individual rankings through "equivalence classes," which compare a subset of objects in the ranking to all other objects through performance alternatives.

David Tedeschi, "The Role of Progesterone in Social Preference Behavior in a Mouse Model of Autism," Project as Research Assistant for a Professor or Graduate Student, Psychology. Project Advisor: Dr. Cheryl Frye

Autism is a common neuropsychiatric developmental disorder that impairs social behaviors; such as interaction and communication; cognitive and/or affective behaviors, motor skills and brain morphology. These incidences occur four times more in males then females, which may be due to the hormone progesterone, a steroid hormone in females which mediates the above mentioned processes. The goal of this project focuses on the cognitive aspect of social novelty in a social recognition task, which is a modified type of object recognition that is based on signals appropriate to social situations (Frye et al., 2006b; Delville et al., 2000). Male and female BTBR mice, that show ASD-like behavior, and control group, C57 mice, will be administered progesterone, or vehicle two to four hours before testing. If the BTBR mice have lower progesterone mediated behavioral phenotypes, administering progesterone may reverse behavioral phenotype effects on the BTBR mice. We predict sex and strain differences in P4 and social recognition performance may be causally linked to the etiology and/or expression of ASD-like phenotypes.


Confessions can be viewed as a sign of remorse for crimes allowing jurors to be lenient in their sentencing decisions; conversely, confessions could simply serve as strong indicators of guilt allowing jurors to come to decisions that leave no room for reasonable doubt. To date, few, if any, studies have attempted to make a link between confessions and capital jury sentence decision-making. In the Capital Jury Project (CJP) nearly 1200 jurors from 14 states and approximately 350 cases were interviewed in depth about the possible aggravating and mitigating factors that influenced their sentence decisions. In the proposed presentation, I will use the CJP dataset to analyze and report on the link between confessions and juror life and death sentence decision-making. Specifically, I will present findings on whether cases in which confessions are present result in more life or death sentences, examining remorsefulness as a possible mediating factor.

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Dylan DePice, “Poor, Nasty, Brutish, and Altruistic: Political Theory from an Evolutionary Perspective,” Senior Honors Thesis, Political Science. Project Advisor: Dr. Morton Schoolman

Evidence emerging from the discipline of Evolutionary Psychology presents an opportunity to reevaluate political philosophies that have attempted to understand the formation and development of modern civil society. Political theorists have long been fascinated by human nature and have often attempted to investigate human nature by isolating it from civilization in a hypothetical pre- or post-societal environment. I will examine these theories in light of evidence from the field of Evolutionary Psychology that bears on the actual pre-societal state of nature from which we evolved. From the applied theoretical perspective Evolutionary Psychology offers, I will consider the consequences for contemporary civilization and the implications for its future, focusing mainly on cooperation and altruism as intrinsic mechanisms of self-interest in the work of Thomas Hobbes.


Women in politics have played a very small role. There seems to be an issue that women may never be on an equal playing field as men. For my honors research, I will try and cipher if women get a fair chance to run for political positions. I will conduct a field experiment that will consist of a series of questions that try to target if voters have a bias to certain candidates. Along with that, I want to see if the media plays a big role in how they depict these candidates. To illustrate the media’s role I plan to use cartoon caricatures that a voter may find in his or her newspaper. These images will me highly dramatized visuals of each candidate; along with tiny excerpts addressing who each candidate is. Based on what adjectives, government position, and government policies voters choose to associate with each caricature, this will help discern if voters have stereotypes/biases; as well as seeing if these biases/stereotypes have been prompted by the media.


Voter apathy has been seen as a growing problem in the United States, a country which prides itself on democracy and participation of citizens in this process. Although many scholars seem to agree that voter apathy is a large problem in the United States, they have not agreed on a solution. Despite the efforts of “get out and vote” or “vote or die” campaigns in schools and by entertainers to increase voter turnout, a large percentage of the eligible population in the United States does not vote. One factor that is important in understanding electoral participation is the rules that structure the voting process. States have a variety of different voting and registration procedures and deadlines; there is no national standard. Examining the variety of state level rules and outcomes may help us understand the problem of low voter turnout.


This study examines index-adjusted returns as a function of mutual fund size measured by total net assets. Conventional wisdom predicts that as mutual fund size increases, mutual funds are more likely to act like their benchmark, and index-adjusted returns will gravitate toward zero. Analyzing a cross-section of funds from the years 1995-2008, I conclude there is no statistically significant relationship between mutual fund size and subsequent index-adjusted return.


Mutual funds mimicking hedge fund strategies, known as “hedged mutual funds,” have experienced rapid growth in recent years. In theory, these funds should provide low correlation to stock market returns, however the 2008 credit crisis negated the expected benefits of many equity diversifiers. As predicted, hedged mutual funds underperform hedge
funds using similar strategies between 2004 and 2009. Over the same period, hedged mutual funds outperform the S&P 500, although funds with a market neutral strategy underperform their benchmark, the 3-month Treasury bill. These findings suggest that, when compared to a long-only equity strategy, hedged mutual funds do offer retail investors protection in a bear market.


A central idea emerging from the financial crisis is that public regulatory agencies need to oversee banks and other financial firms more effectively. This paper examines comparatively the regulatory activities of four main federal banking regulators: the Federal Deposit Insurance Corporation (FDIC), the Federal Reserve (the Fed), the Comptroller of the Currency in the Treasury Department (OCC), and the Office of Thrift Supervision (OTS). It analyzes how the agencies’ regulatory cultures differ, and how changing structures of economic and political power in the banking industry are affecting the agencies. The paper uses a database compiled from the agencies’ websites on their regulatory actions from 1987 to 2009. It also draws on published writings and internal reports on the agencies, particularly covering activities leading up to and during the recent financial crisis, as well as other statistical information on banking regulation.

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Oral Presentation Session III
LC 13

Daniel DaCosta, “5a-reductase Inhibitors Decrease Proliferation in Prostate without Altering Sexual, Anxiety, and/or Cognitive Behaviors in Male Rats,” Senior Honors Thesis/Independent Study Project/Work as a Research Assistant to a Faculty Member, Biology-Combined Honors Program. Project Advisor: Dr. Cheryl Frye

We tested the hypothesis that T’s effects to enhance prostate proliferation, sexual, social, anti-anxiety-like and/or cognitive behavior, require formation of 5'-reduced metabolites. Gonadally-intact, gonadectomized (GDX), Gonadally-intact with T added, or GDX rats with T-replaced through silastic capsules, were administered finasteride, a 5'-reductase inhibitor, or no manipulation. The performance of rats in tasks that are sensitive to cognitive, anxiety-like, or sexual behavior was examined. GDX decreased prostate weight, reduced cognitive performance in the object placement task, increased anxiety-like behavior in the open field, social interaction, light-dark transition, and mirror maze tasks, and induced sexual interest. Systemic administration of T significantly increased prostate weight, whereas, systemic finasteride administration significantly decreased prostate weight. Rats administered finasteride tended to have longer latencies to find the hidden platform of the water maze, and longer latencies to intromission. Thus, finasteride’s effects were more salient in the prostate tissue than the brain.

Fareed Haddad, “The Anti-epileptic Drugs Phenytoin and Valproate Produce Reproductive Endocrine Dysfunction Among Female Rats,” Senior Honors Thesis, Biology. Project Advisor: Dr. Cheryl Frye

Anti-epileptic drugs (AEDs) have been proven to be a very effective treatment leaving 60 percent of patients seizure free. Unfortunately, these drugs may alter normative neuroendocrine processes. Studies in women with seizure disorder, find that the occurrence of sexual dysfunction is greater among those prescribed AEDs that are termed “enzyme-inducing” for their actions to alter metabolism, such as phenytoin, compared to those prescribed that are non-enzyme inducing, such as valproate. This study aimed to assess the effects of phenytoin or valproate, two commonly prescribed AEDs, on the sexual function of female rats using hormone-mediated cyclicity and observations made during standard sex testing to assess endocrine status. Treatment with either phenytoin or valproate significantly disrupted estrous cyclicity among female rats and significantly increased aggressive behavior of female rats when engaging in mating. Together, the data suggested endocrine dysfunction is associated with administration of the enzyme altering AEDs, phenytoin and valproate.

Francelina Morillo, “The Role of the Phosphatidyl Inositol 3 Kinase in the Development of the Retinotectal Map in Zebrafish,” Independent Study Project, Biology. Project Advisor: Dr. John Schmidt

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This presentation looks at the change in American involvement in the Irish conflict during the 1980s. The United States government had previously taken an isolated stance from the conflict, but their citizens had not. Support poured out of the United States in the form of propaganda, financial support, weapons, and provision of a safe haven to Irish Republican dissidents. The United States government did little to stop this support and through this passive negative policy it became clear to the British that it was important to stop the diaspora’s support. Pressure from the British government as well as the American people led the United States to become involved in the conflict and break down the lines of support among their citizens. I will analyze the effect this loss of support had on the Irish Republican Army (IRA) and see how important passive support from the United States was to their levels of violence.

Trisha Hahn, “Tree Huggers to Terrorists,” Senior Honors Thesis, Political Science and History. Project Advisor: Dr. Victor Asal

The research method is a quantitative analysis of the data collected primarily through LexisNexis searches and the websites of the Organization. This project was originally done as part of a START Undergraduate Research Project and I am fine tuning it for my thesis. Eco-terrorism is becoming a new branch within the movement, but why are some content to work within the system to effect change, and others, feel that more direct and extreme action is required, what makes one group an activist and another a terrorist organization? Although there are some who contest that such a thing as eco-terrorism exists, in this project a definition will be explored with the hypothesis that it is organizations which have a loose cell structure that are more likely to commit acts of terrorism rather then those with a more tightly organized hierarchical structure.


A 2009 report from the Empire Center for New York State Policy reveals that from 2000-2008 there has been a net migration from New York State of over 1.5 million residents. The report suggests that the $30 billion dollar loss in taxpayer income over this time period could have been a result of the state’s relatively high per capita tax burden. After much debate for establishing a more progressive income tax system a bill was passed in 2009 to increase the states tax progresivity in attempt to settle a $16.2 billion budget deficit. In light of these occurrences I have chosen to research the effects of income tax structures on inter-state migration. I construct a political economy model and through a game theoretic approach attempt to explain a possible motivation behind the out flow of so many of New York State’s high-income earners and a potential remedy through tax reformation.


This project is intended to model heat conduction through a picocalorimeter using a multi-physics software package called COMSOL. A calorimeter is a tool used to measure heat transfer, quantities of heat, and many different forms of chemical reactions. In this particular project I modeled a nanoscale device called a picocalorimeter, which is a calorimeter that measures extremely small (even single cell) heat changes. The overall purpose of this project is to use the modeling program to predict the time it takes for the picocalorimeter to reach equilibrium temperature after the sample H2O droplet is placed in the device. This projects finding was intended to assist in development of biological technologies. The picocalorimeter for which I developed my model consists of three main components: silicon nitride (SiN), silicon (Si), and a water droplet (H2O). The approach I used was to examine heat transfer from an H2O droplet to the silicon and silicon nitride base.

For almost a decade, New York State has been enforcing its law banning the use of cell phones while driving. The law is far from enforced with strictness and in fact, the lack of its enforcement has become an increasing public health and economic concern due to the number of increased motor vehicle accidents, accidental deaths and insurance claims. There is a need for an awareness campaign involving short media-based spots that would graphically shock and send an effective message to a targeted listening audience. The campaign will attempt to graphically remind young drivers that it is unlawful in the state of New York to operate a motor vehicle while taking on a cell phone in order to reduce the number of serious accidents and deaths that occur from such behavior.


The goal of this research is to test the role of English language proficiency as a mechanism of the racial and ethnic disparities that exist in the utilization of healthcare services. I will use econometric methods to: (1) estimate disparities in utilization of health services, adjusting for differences in the need for service across racial/ethnic groups, and (2) decompose disparities into their mechanisms, focusing on language. In addition, I will use these findings to critically examine programs currently in place to mitigate these disparities, such as programs targeted at Medicare beneficiaries, and what can and has been done to improve these programs. Data for the study come from the Collaborative Psychiatric Epidemiology Surveys (CPES), a national survey that includes epidemiological information on mental disorders, health service usage, and sociodemographic data among the general population with special emphasis on minority groups. Notably, CPES respondents who were not proficient in English completed surveys in their native languages, which include Spanish, Mandarin, Tagalog, and Vietnamese.

Lucy Place, “Implications of Drug Narrative in Fall 2009 Primetime Television Dramas,” Senior Honors Thesis, Communication and English. Project Advisor: Dr. Mihye Seo

How do narrative structures inform us about our own world? This study was conducted to discover the implications of drug content depicted in primetime television through the evaluation of contemporary and stereotypical characterization trends. This study examines drug content in two medical dramas and two crime dramas; these four programs were each the highest rated from the four most popular networks. These shows included Grey’s Anatomy (ABC), House (FOX), Law & Order SVU (NBC), and CSI (CBS). The shows which were coded and analyzed are from the fall 2009 season. The goal of this thesis is to understand the make-up of characters involved in drug narrative and to perhaps begin to understand the intent of the producers who shape these stories.

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Oral Presentation Session IV
LC 12

Fraulin Joseph, “Proteins and Pathways that Modulate the Toxicity of the Chemotherapeutic Drug Carmustine,” Independent Study Project, Biology. Project Advisor: Dr. Thomas J. Begley

Carmustine is a DNA alkylating agent that promotes double strand breaks and cell death. Previously we have performed a high-throughput screen of the 4,542 mutants in the Saccharomyces cerevisiae gene deletion library using carmustine and identified 53 carmustine sensitive strains. Using Fun Spec polypeptide analysis we have identified functional protein categories which were over-represented within our list of 53 proteins. These categories include general, postreplication, recombinational DNA repair, amino acid metabolism, oxidative stress, stress responses, and transcriptional regulation. Using BLASTP protein sequence analysis of the genes found in the initial screen we identified 30 human homologues. By performing a complementation study we were able to show that rad18Δ and slm3Δ were able to be rescued from carmustine sensitive using both their yeast and human gene counterpart parts. Knowledge of the function of these identified genes and their associated gene products will facilitate further experimentation using carmustine as a chemotherapeutic drug.

This paper demonstrates how suburban sprawl has affected the environment. Between 1930 and 1980 the natural environment of Nassau County, Long Island, dramatically transformed from potato fields to multiple suburban towns. This presentation demonstrates how the development of Levittown, the first American suburb affected the environment and in particular, issues pertaining to water: drainage, quantity, and quality. By examining related newspaper articles and other publications, I concluded that suburban style living had many consequences. While engineers find solutions, my research examines the causes and effects of suburban style living on water quality. Many historians trace how Levittown offered the American dream to soldiers returning from war at a reasonable price. I examine the environmental consequences of pursuing the American dream. The mass produced houses, roads, roofs, and sidewalks, and the desire of a green lawn affected the landscape and the land below the surface.

Dana Schiffman & Ashley Tate, “Did You Get “Swine” in 2009?: How the University Website Influenced Student Awareness of the H1N1 Pandemic,” Independent Study Project, Public Health and English. Project Advisor: Dr. Irina Birman

This student-initiated survey was conducted on the University campus under the guidance of our mentors, Drs. Irina Birman and Glen Johnson of the School of Public Health. The survey consisted of ten questions in regards to the information provided on the University’s website on the H1N1 pandemic (http://www.albany.edu/h1n1/index.shtml). The purpose of the project was to evaluate the effectiveness of the website, enhance awareness of and minimize anxiety associated with the pandemic in fall 2009, along with proposing a more effective way of information transmission. The survey questions were engineered to also reveal how different categories of students interpreted information posted on the website. Gathered responses were broken down into basic demographic categories. The observed patterns indicated that students were not apprehensive toward the spreading pandemic, appeared to be uniformed or under-informed, and that various sub-populations of students comprehend information differently. All these results should be considered during the information dissemination process.

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Sunday, April 18, 2010

Abstracts Arranged by Session and Room

Note: All project titles and abstracts are printed as received.

Poster Session III
Lecture Center (by LC 30 and LC 31)


For Americans today, the political landscape is one of uncertainty. The election of Barack Obama and the recent economic crises have shaken the confidence of many who consider themselves “conservative” or “libertarian” in the ability of the government to serve them in the ways they believe it should. As individuals have begun to organize themselves within their communities to redirect the rapid change they see occurring all around them, the identifier for the network of groups with conservative, grassroots orientations has been the “Tea Party Movement.” This paper will attempt to draw parallels between grassroots movements in the recent past, such as Quaker consensus process and anarchist spokes councils, and the Tea Party Movement today. These parallels may be controversial because, for groups like the Quakers and the anarchists, decentralized decision making comes out of a desire for liberation from the very social forms which the Tea Party Movement seeks to preserve.

Jason Behnke, “Bacterial Growth Inhibition by Nanomaterial-modified Fabrics,” Project as a Research Assistant for a Professor or Graduate Student, Chemistry. Project Advisor: Dr. Nathaniel Cady. Collaborator: Aaron Strickland.

Antibiotic resistant bacteria pose a serious threat to human health. The primary objective of this work is to identify novel nanoscale materials that inhibit bacterial growth and to implement these materials into wound dressing materials. Inhibition of bacterial growth by nanomaterial-loaded wound dressing materials has been assessed for multiple bacterial species including A. baumannii, P. aeruginosa, S. aureus, and B. globigii. Three different nanomaterial-modified fabrics
have been tested to date, including silver, zinc oxide, and copper. 100% inhibition of bacterial growth was observed for copper nanoparticle-coated cotton fibers for concentrations as high as $10^9$ cfu/ml!

Roopa Bhopale, "Towards a Deeper Understanding of the Use and Effectiveness of Human Resource Dashboards," Senior Honors Thesis, Business Administration and Psychology. Project Advisor: Dr. Richard Johnson

I hope to examine factors which influence the effectiveness of human resource dashboards and employee motivation in using them. I have developed two models based on past research as a framework in studying dashboards. Model 1 concerns dashboard use and is based upon Ajzen’s theory of planned behavior with constructs of attitude, subjective norms, perceived behavioral controls, intention, and use while Model 2 identifies factors leading to successful dashboard outcomes. Phase 2 consists of interviews with approximately 10 HR dashboard developers and users regarding system use and success. These interviews will be useful in determining the extent of practical application of the theoretical research. The ultimate goal is to fill in gaps in current research and to be able to apply findings towards creating value added human resources specific dashboards which benefit the individual user as well as the overall organization’s objectives.

Estrella Carchichabla, "Impediments to Policing Reform in Argentina and Brazil," Senior Honors Thesis, Criminal Justice. Project Advisor: Dr. Greg Pogarsky

Policing reform is difficult to achieve everywhere. In Mercedes S. Hinton's book, The State on the Streets: Police and Politics in Argentina and Brazil, she begins by explaining that Argentina and Brazil are “… two of the largest, richest, and most influential nations in Latin America (9).” Despite this both nations are prime examples of corruption and the struggle towards policing reform. Impediments to policing reform in each besides a resistance towards its implementation are corruption, a long history of violence, and globalization. Overall Argentina and Brazil are only two stark examples in a pool of failing criminal justice institutions in Latin America.

Vanessa Costanzo, "The Role of Progesterone Receptor in Development of Medial Prefrontal Cortex and Impulsive Behavior," Senior Honors Thesis, Psychology. Project Advisor: Dr. Christine Wagner

Behavioral disorders, such as ADHD, are presumably regulated by functional alterations in brain regions such as cerebral cortex and are evident in early childhood, suggesting developmental origins. Steroid hormones and their receptors exert permanent effects on neural development and progesterone receptors (PR) are transiently expressed in cerebral cortex during early life in rodent models. This study tested the hypothesis that PR activity during development plays an important role in the maturation of medial prefrontal cortex (mPFC), and in cortically-mediated cognitive behaviors in adulthood. Rats were treated with a PR antagonist, RU486, or a control vehicle during development. RU486 significantly reduced dopamine innervation in the mPFC and resulted in deficits on an inhibitory avoidance task, suggesting impaired working memory and behavioral inhibition. These findings suggest that PR plays a previously overlooked role in normal cortical development and cognitive behavior and may implicate steroid receptor activity in developmental disorders, such as ADHD.

Neelam Gera, "Analysis of Internal Tension of DNA Kissing Complexes through Fluorescent Resonance Spectroscopy," Undergraduate Research Initiative Collaborative Project, Biology. Project Advisor: Dr. Pan Li

Long-range tertiary interactions of macromolecules are constrained by structure and tension between the interacting domains. To understand how such linkage may affect tertiary interaction, we constructed a series of DNA molecules, each consisting of a pair of hairpins linked by a single strand. The two hairpins can form loop-loop base pairs, an interaction known as a kissing complex. We added fluorophores to the ends of these DNA molecules. By measuring fluorescence resonance energy transfer (FRET) efficiency, we are able to determine the stability of formation of the kissing complex. When the kissing complex is formed, we expect an increase in FRET signal. We then made the linker double-stranded by adding a complementary “bridge” oligo, predicting that this will stabilize formation of the complex. Formation of the kissing complex is a vital step in the HIV-1 replication cycle and it is our hope that disruption of this step could successfully halt dimerization and stop the retrovirus in its tracks.


Bioengineered 3-D tissue constructs have great potential for understanding tissue development and tissue repair in patients lacking functional organs. One of the major challenges faced in the field is to build functional tissue constructs that resemble tissue in vivo. Cells and tissues in the body are organized into 3-D architectures, which interact with fibrillar extracellular matrix (ECM) proteins at a nanoscale. Both the topology and elasticity of the ECM play critical roles in
regulating tissue formation. Alginate, a natural polymer, is a good candidate to mimic the topology and elasticity of the ECM. In this study, the feasibility of synthesizing 3-D alginate nanofibers and microbeads that mimic the elasticity and topography of the ECM has been investigated. 3-D alginate microbeads and nanofibers were fabricated through the processes of electrodroplet and electrospinning respectively. Our results provide a platform for bioengineering salivary gland constructs in future studies for patients with xerostomia.


This thesis project aims at analyzing District Council 37’s position and legislative influence on the privatization of public education in New York State. Research is focused on two areas of NYS education – charter schools and the SUNY system – examined through the lens of an influential public employee unions legislative perspective. This project attempts to examine the reasons why public schools turn to private donors/lenders in order to succeed, assesses the political and social effects of such privatization and, as a result, reveals the importance and influence of a labor union on implementing and/or preventing legislation. Research is comprised of resources made available to a District Council 37 intern such as: Personal interviews with DC 37 legislative staff as well as offices of NYS Legislators, various pieces of legislation (both past and current) involving state education, literature focusing on the history/effects of connecting private with public, and numerical data that helps to clearly identify the pros and cons of public school privatization – all of which will help to make conclusions about the future of public education in New York State.


The aim of this research project is to identify the determinants of a victim or third party’s decision to call or notify the police following violent victimization, and the reason(s) for either reporting or not reporting crime to the police. Using data from the NCVS, a number of variables will be considered for their importance in victim decision making. Victim and offender demographics such as gender, age, and race will be considered. Specific variables to be examined in the study include the relational distance between the victim and the offender, as well as the relationship between the victim and the reporting party when the report is made by an outside agent. Other variables to be included are the utilization of a weapon in the incident, the type of crime circumstances (e.g., robbery vs. assault), existence and type of injury sustained by a victim, the dollar value of lost property, and the actions taken by a victim during an incident pertaining to self-protection.

Kimberly Loneck, “The Impact of the Charge Location on the Capture of Dipolar Molecules by Charged Airborne Particles,” Independent Study Project, Atmospheric Science/Physics. Project Advisor: Dr. Fangqun Yu

The charge state of airborne particles is critically important and may be the dominant factor controlling the uptake effectiveness and rates at which molecular dipoles nucleate in the Earth’s atmosphere. The derivation of formulas expressing the uptake efficiency for various systems involves a number of assumptions, including spherical symmetry of the electric field produced by a point charge located in the center of either a conducting sphere or isotropic gaseous medium. Here we demonstrate that charge location is an important element and impacts both the uptake coefficient and nucleation rate associated with the ion-dipole interaction model, assuming a non-zero charge state of airborne particles. The validity of the conventional spherically-symmetric approximation has been examined, and enhancement factors for water and sulfuric acid, captured by charged airborne particles, have been computed using the modified uptake model derived in the present study.


The silent films directed by Alfred Hitchcock (1899-1980) are overlooked by many, but the motion pictures he worked on prior to directing features are practically unknown, with the majority missing and the remainder largely inaccessible. Hitchcock began by designing intertitles, not becoming a director until The Pleasure Garden (1925). The nineteen films from 1920-1925 are poorly addressed in the published material on Hitchcock. By searching for the texts that were adapted, newspaper articles and reviews, censorship records, and other ephemera, it has proven to be possible to find out much more about most of these films than has previously been reported. Findings include the first instance of Hitchcock being quoted regarding his film work (December 1921), an unpublished photo-play for Appearances (1921), which was the third film for which he had done title cards, and new information and artwork for The Mountain Eagle (1926).

Recent studies have shown that 3,5,3'-Triiodo-L-thyronine (T3) has the ability to stimulate angiogenesis, when it is prevented from going to the nucleus. In this study we describe a method to synthesize and characterize chitosan-poly(lactic-co-glycolic acid) (CHI-PLGA) nanoparticles encapsulating T3. Further, these nanoparticles were characterized using a dynamic light scattering (DLS) instrument. The amount of T3 encapsulated in the nanoparticles was determined by High-performance liquid chromatography (HPLC). The efficacy of the optimized formulation was determined through CAM model and compared with the non-encapsulated counterpart. The nanoparticles were effectively labeled using Cy3 dye and the uptake Cy3 labeled formulation was determined in Human Endothelial Cells (HUVEC) using confocal microscopy. Both PLGA polymer with the ratio of 70:30 or 50:50 lactic acid and glycolic acid, along with .001% chitosan to PLGA have the highest loading efficiency. Experimental observation in Chorioallantoic membrane (CAM) assay shows that T3 retained its proangiogenic activity when encapsulated in both of these formulations. The aqueous solution of T3 encapsulated CHI-PLGA nanoparticles can be obtained in powder form through lyophilization without changing their size. Through confocal imaging it was shown that the Cy3 labeled T3 CHI-PLGA nanoparticles successfully entered the HUVECs.

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Oral Presentation Session VII
LC 11


In creating poetry that demonstrates his relationship with a woman with whom he is well acquainted, he has often been criticized for being crude and vile. Details describing the woman’s body have caused him to pick up labels like “misogynist”, “egotist” and “careerist who used women for his own advantage” (Ashah Guibbory) but my essay will argue that Donne poetry does not demean women but in fact acknowledges and appreciates all of their capabilities. During a time in which women were not seen as a man’s equal, he was torn between his love for a strong-willed and powerful woman and his position in society as a superior male. Moving through the poems, readers find Donne highlight the woman’s flaws and then expressing the reasons why he’s so fond of her. This back-and-forth movement of tone and opinion reflects the complexity of Donne’s speaker’s position as a man in his time and a man who loves and respects a woman. The fact that the woman is a capable individual serves as both a reason for his love and a threat to the security of his masculinity. The style and content of his writing promotes and demonstrates a multifaceted and truthful love that contradicted the general idea that women were inferior to men.

Emmelia Krontiris, “Bipolar Cultural Complexes: Human Experience as the Interaction Between the Arts and Sciences,” Senior Honors Thesis, English. Project Advisor: Dr. Eric Keenaghan

What the meaning of “experience” is and how it interacts to bridge the gap between the arts and sciences. Laying out the historical context of science and literature, and when human experience in regards to nature and science becomes an issue. Laying out major questions on how Whitman complicates the two “cultures”, but how his poetry is an important representation of that. When comparing Whitman to John Dewey, they both approach experience as learning and living as an experiment but the method and process they both go by it is very different. Despite the study of this impact on literature occurring over two thousand years ago, it is still comparatively new and only a few scholars have been successful due to their lack of knowledge about science during their time. Knowledge alone comes from the interaction we, as humans, have with the external world. The “external world” is the same as the “internal world” since eventually what goes on outside must be perceived inside our minds. The physical facts of the universe are primarily perceived with our five senses and our brains turn that electrical impression into experience. When analyzing Whitman’s poetry, looking at the way experience is represented and observing how it become a different method from how John Dewey regards art as experience. The main important point is why society should care about the whole idea on how human experience interacts between the arts and sciences. Whitman’s style of writing affects readers and what he does to make a connection and what that says about experience. Discussing how we are making Whitman more modern and basically moving him beyond his own time.

Christopher Marlowe's Doctor Faustus has presented critics with much to debate. The play, a retelling of the Faust legend in which a man sells his soul to the devil in exchange for 24 years of satanic assistance in all his endeavors, remains controversial to this day. Furthermore, the text exists in two versions commonly referred to as the "A Text" and the "B Text." Rather than arguing for one text's supremacy over the other, or suggesting that they are remnants of an original manuscript, I seek to examine the implications of possessing two texts. It is my belief that Christopher Marlowe authored the two Doctor Faustus plays to serve as "inquisitive vehicles" to explore various questions and uncertainties on humanity and the afterlife contemporary to his time.

Oral Presentation VIII
LC 12

Monique Gaston, "Domestic Violence in the African American Community," Independent Study Project, Psychology. Dr. Marcia Sutherland

There is very limited research on domestic violence. More importantly, it is especially difficult to find literature that focuses on specific demographics in the United States. This paper is a compilation of research regarding the topic of domestic violence in general. Though in large part, it also investigates domestic violence research in the African American community. The evidence presented seeks to bring awareness to the growing problem of abuse. Moreover, it looks to emphasize the need for more research about domestic violence and its significant impact on African Americans.

Yael Gavronsky, "Pathways from Child Maltreatment to Conduct Disorder: The Role of Mediating Variables," Course Assignment, Psychology. Project Advisor: Dr. Hazel Prelow

Childhood maltreatment occurs in every nation, maliciously disrupting the physical, mental and social growth of children worldwide (International Society for Prevention of Child Abuse and Neglect, 2008). It is essential to recognize the societal costs along with the pain, suffering and reduced quality of life experienced by its victims (Miller, 1993). The purpose of this paper was to explore potential pathways through which maltreatment could lead to conduct disorder. Child maltreatment is a generic term that refers to four primary acts of physical abuse, neglect, sexual abuse and emotional abuse (Centers for Disease Control & Prevention, 2007). Specific mediators associated with these forms of maltreatment that have been linked to the development of conduct disorder are explored. The study of potential pathways from child maltreatment to conduct disorder provides important information that could be used to develop preventive interventions for maltreated children.


The purpose of this study is to explore both changes and the lack of change in regards to the depiction of race in the superhero comic book, as well as, other various forms of media that these superheroes have branched into. Could it be possible that in the 21st century we are still using stereotypes and stereotypical images of particular racial groups? Do comics make the mistake, often discussed by sociologists, of assuming that racial groups all have the same experiences, that whites can represent all groups, but people of color cannot, and does white privilege exist in the comic book culture? The presentation will consist of a media project that will show various white and minority characters that have been developed over time. The media project will show the depiction of race in various superhero media, as well as a literature review, content analysis, and a pending results section.

Oral Presentation Session IX
LC 13

Sam Centanni, "Function of ROCK in Regulation of Tissue Polarity in Developing Salivary Glands," Senior Thesis, Biology. Project Advisor: Dr. Melinda Larsen

Formation of organs requires orchestrated cellular organization. In the developing salivary gland, the establishment of epithelial cell polarity is critical for the development of saliva-secreting acinar clusters, which are composed of a single
epithelial cell layer surrounding a centralized lumen. Acinar cells have distinct apical and basolateral domains, with the apical surface facing the hollowed-out lumen and the basal surface contacting the basement membrane, a specialized form of extracellular matrix that separates the epithelium from the surrounding loose connective tissue. The proper orientation of such epithelial cells is critical for tissue development and the unidirectional secretion of saliva by adult glands. However, the molecular mechanisms by which the salivary gland epithelium establishes this distinct polarized tissue structure remain unknown. Understanding the function of cell polarity will be useful for engineering a functional artificial salivary gland by seeding stem cells on a biodegradable scaffold and then inducing apical-basal polarity.


The microenvironment surrounding developing cells plays a significant role in cell development. Preliminary research from our lab, using mouse submandibular glands (SMGs), suggested that a more compliant microenvironment promotes branching and secretory cell development. I hypothesized that salivary gland branching morphogenesis and/or differentiation could be controlled by substrate stiffness. Through the utilization of polyethylene glycol dimethacrylate (PEG-DMA) hydrogels, we were able to prepare gels of varying and quantifiable stiffness. SMGs were cultured on PEG gels, and data was obtained through observation of SMG morphology, Western blot analysis, and immunocytochemistry followed by confocal microscopy. Our recent research indicates that there are significant differences in morphology, protein expression, and protein localization between glands cultured on gels of different rigidity. The results of these and further experiments will provide us with new insights into the underlying dynamics of SMG development, bringing us closer to our goal of creating an artificial salivary gland.

Daniel Leonard, “Rac GTPase is Required for the Formation and Maintenance of Cell-Cell Junctions and Regulation of Cell Polarization During Embryonic Salivary Gland Development,” Senior Honors Thesis/Work as a Research Assistant for a Professor or Graduate Student, Biology. Project Advisor: Dr. Melinda Larsen

Salivary glands undergo a developmental process known as branching morphogenesis to yield a complex adult structure that both produces and transports saliva to the mouth. Coordinated cell-cell communication is critical for morphogenesis, but how this is regulated is not understood. We hypothesized that the Rho family GTPase, Rac, regulates cell-cell communication by the formation and maintenance of these cell-cell adhesions which impacts the overall polarity. Our results show that inhibition of Rac disrupts branching morphogenesis and alters the localization and expression of cell-cell junction proteins, such as E-cadherin. Similar to the effects of inhibited Rac, loss of cellular polarization is common in cancer cells. Understanding the function of Rac will greatly facilitate future studies examining its role in salivary cancers and in other salivary gland diseases.

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Oral Presentation Session X
LC 14


Steroid hormones exert powerful and permanent effects on the developing brain; they act on their respective receptors which are transcription factors which act to differentiate cells in the brain. There is sexually dimorphic manner in which progesterone receptor (PR) is expressed in the medial preoptic nucleus (MPN) during development, which suggests that PR is important for the development of the male brain. This study tested the hypothesis that PR affected glutamate decarboxylase (GAD), the synthetic enzyme for y-aminobutyric acid (GABA), the primary inhibitory neurotransmitter. GAD was measured using Western Blot analysis for differences between a transgenic mouse model of mice which have functional PR, and mice lacking functional a PR gene (PRKO). Results from this study will elucidate the role of progesterone and its receptor in the development of the male brain and may suggest that the regulation of GAD by PR is one mechanism by which testosterone exerts its actions in the sexual differentiation of the brain.

Elizabeth Kardas, “Telomerase and Disease Associated Mutations,” Senior Honors Thesis, Human Biology, Project Advisor: Dr. Carla Theimer

Telomerase is the ribonucleoprotein complex responsible for the maintenance of telomeres, the physical ends of chromosomes. Telomerase activity is carefully regulated in the cell. The human diseases dyskeratosis congenita, aplastic anemia,
and idiopathic pulmonary fibrosis have been associated with mutations within the genes that encode for the two telomerase core components: hTERT and hTR. Recently, the first structures of two domains in hTR were reported, offering a structural basis for interpreting biochemical studies and possible roles of hTR mutations in human diseases. My work-in-progress project has two main goals, (1) to create the disease-associated hTR mutations in the DNA of a plasmid for in vitro experimentation in our laboratory, and (2) to create RNA samples of the 10 mutations in the pseudoknot domain for chemical probing. This research will provide us with a better understanding of these bone marrow failure diseases and in the overall mechanism of the telomerase enzyme.


Dysfunction of potassium ion channels may result in neuronal, cardiac, and muscular disorders. Several subfamilies of potassium channels are regulated via G-protein coupled receptor signaling pathway and the signaling molecule PIP2 may affect potassium channel activity. To understand how PIP2 regulates potassium channels, we are going to construct a unique fluorescent system to manipulate the PIP2 levels in the plasma membrane of Xenopus oocytes. We plan to heterologously express membrane-attached FRB-CFP fusion protein and cytoplasmic RFP-FKBP12-phosphoinositide 5-phosphatase fusion protein in Xenopus oocytes. Application of rapamycin will result in heterodimerization of a FKBP12 protein with FRB protein. This process will increase the concentration of phosphoinositide 5-phosphatase and change the concentration of PIP2 in the oocyte membrane. Accordingly the fluorescent signals will change during this process. With site-direct mutagenesis and sub-cloning strategies, we successfully made a construct that express RFP-FKBP12-phosphoinositide 5-phosphatase fusion protein in Xenopus oocytes.


Charlotte Perkins Gilman and Kate Chopin are foundational authors in the canon of American feminist literature. Their works attempt to reconcile women’s needs and potential with the nineteenth century’s intractable notion that men and women must occupy “separate spheres.” Gilman writes in nonfiction and utopian genres in order to depict human potential optimistically and propose pragmatic reforms. She even suggests that confronting the problem will compel humanity to realize its unique potential. In contrast, literary and societal conventions determine the dark outcomes of these authors’ realist fiction. Gilman’s short story “The Yellow Wallpaper” and Chopin’s novel The Awakening expose the human consequences of patriarchal social and economic conditions. Together, these texts signify a tension within early feminism between possibility and reality. Women’s economic dependence, her role as mother and wife, and the kind of work these roles demand are realities that make imagining alternatives seem fantastic.

Tiffany Parkhurst, “Amy Beach: An American Composer,” Project or Assignment for a Course, English. Project Advisor: Dr. Von Arx

This presentation will examine the life and work of Amy Beach, an American pianist-composer who lived from 1867-1944. I will include a biographical over-view of Beach’s life, as well as a detailed look into some of her works in order to facilitate the discussion of Beach as a female composer, and the obstacles she faced living in a male-dominant society. By comparing contrasting historical documentation, I will discuss the social issues faced by Beach, and determine how such issues affect her musical career, and possibly influenced her composition. I will present examples of Beach’s work and discuss her style and techniques which established her as a romantic composer.


The goal of my thesis is to expand upon the work of J. Yellowless Douglas and Andrew Hargadon in their essay “The Pleasures of Immersion and Interaction: Schemas, Scripts and the Fifth Business,” and examine how their theory of a bridging of the immersion/engagement divide in video games can be applied to certain novels as well, using the specific examples of Thomas Pynchon’s Gravity’s Rainbow, and William S. Burroughs’ Naked Lunch.
Ashley Strang, “The Mad Truth of Testimony within Dostoevsky’s Notes from the Underground,” Senior Honors Thesis, English. Project Advisor: Dr. Branka Arsic

Upon reading Dostoevsky’s novel Notes from the Underground we are presented with the problem of receiving all of our information through the confessions of the psychologically disturbed, highly irrational, self loathing and isolated narrator—the underground man. The first section of my paper explores how Notes from the Underground is a testimony. Using theories from both Derrida and Ricoeur, I compiled my own set of the components of testimony and tested the novel against each. The following section of my paper questions testimony within literature, specifically the complexities that arise when working with fictional novels, as well as the role the author plays in this very specific genre. The final section of my paper focuses on madness by questioning whether the underground man is indeed insane and what the implications of such would be for his testimony.

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Oral Presentation Session XII
LC 12

Hanmi Choi, “Narcissism in Advertisement,” Project Assignment for a Course, Journalism. Project Advisor: Dr. Thomas Bass

Air Jordan, Calvin Klein underwear and the WonderBra advertisement campaigns transformed mundane objects into a narcissist desire to become the person in the advertisements. And when engaged in these ads the person not only sees the images, but also themselves as part of the image. This is the ultimate goal in advertising; that the viewers will succumb to the images to fulfill their desire to become the image. These campaigns led to a direct boon in profits, as the viewers buy these products and try to achieve the image advertised and in turn distort their true identity. Through a series of commercials and supporting material I will show how these commonplace items were able to convince viewers that it was essential to purchase products to become the image of their desires as defined and dictated by the ads.


In 1968, the nation of France bore witness to the largest and most widespread public protest the country had seen since the end of the Second World War. Most of the rebels were followers of left politics, supporting various forms of Marxism. One variant of Marxism, which influenced the rebel perspectives, was the Situationist International’s theory. It is this variant and its influence on the events of that time that will serve as the focus of this paper. By examining text, leaflets, manifestos, demands, statements, and the art of various radical groups I will illustrate how the theories of the Situationist International had a direct influence on the ideas and actions of rebellious student groups. I intend to focus my research by addressing the relationship of the groups’ views on three issues: Education, Tactics for Rebellion, and Politics of Western Culture.


European and American companies introduced film to the Korean peninsula in the early 1900s at the time of the Japanese occupation. In 1905, the nation of Japan declared the Korean peninsula a protectorate and implemented strict censorship policies over media, including film, and in 1910, the Japanese government annexed the peninsula as a Japanese colony, which it remained until Japan’s defeat in World War II in 1945. Despite the political difficulties of the time, the Korean people actively adopted film into their popular culture and used it to present their own perspective on Korean society. How do Korean films portray the Japanese during the colonial period? In terms of larger trends, are there changes or continuities in these portrayals between films made during the colonial period and contemporary South Korean films?

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Donald DeRosa, “Development of Porous Silicon Electrodes for Supercapacitor Applications,” Project as Research Assistant for a Professor or Graduate Student, Chemistry and Physics. Project Advisor: Dr. Pradeep Haldar, Co-Supervisor: Dr. Manisha V. Rane-Fondacaro

The primary focus of this project is optimizing the various properties of porous silicon with the intent of replacing the activated carbon electrode in a supercapacitor with a material that can withstand the strain of high voltages (exceeding 2.7 V). The energy and power density of supercapacitor is dictated by the equations $E = \frac{1}{2} CV^2$ and $P = \frac{V^2}{4} \times ESR$, where $E$ is the energy density, $C$, the capacitance, $V$, voltage window, $P$, power density and $ESR$, is the equivalent series resistance. To realize the energetic benefit of high voltage supercapacitors operation, porous silicon is being fabricated with properties that mimic that of activated carbon. If successful this research is expected to yield breakdown voltages of over 8 volts and capacitances of over 125 F/g which would result in supercapacitors that have nearly 9 times the energy density found in currently available supercapacitors.

Derek Mallia, “Flash Flood Events Associated with Northeastern Cutoff Cyclones,” Independent Study Project, Atmospheric Science. Project Advisor: Dr. Lance Bosart

Forecasting the timing and intensity of warm-season flash flood events is a challenging issue across the northeastern United States. Many flash flood reports that affect the Albany County Warning Area (CWA) are associated with cutoff cyclones, making the predictability of flash flooding even more complicated. The purpose of this presentation will be to document flash flood occurrences in association with cutoff cyclones in an attempt to better understand synoptic and mesoscale signatures associated with these events.


Representation Theory, where my research is primarily done, is essentially the study of how to take abstract notions and represent them in a way that can be mathematically understood so that we can apply certain axioms and theorems. My work is concerned with how we can represent a lie algebra of low rank in the space of complex valued polynomials such that the resulting representation can be described in a space of infinite dimensions. This is done by looking at different differential operators which mimic the behavior of the Lie algebra in some intriguing ways.

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C. Belfiglio, B. Budnevicu, D. Cheng, A. Hoffman, P. Olsen, & J. Williams. “Effect of Usability of User Interfaces on the Functionality of Software Applications,” Project or Assignment for a Course, Computer Science. Project Advisor: Dr. Mei-Hwa Chen

This project will study the effect of usability of user interfaces on the efficiency of using software applications. A number of surveys will be conducted on a large number of the students in the College of Computing and Information. These surveys will be constructed based on the research findings from the existing work. And the data obtained from the surveys will be analyzed and used to build a new model that provides a set of guidelines for developing high usability software. The goals are to establish what necessary criteria are required for a functional graphical user interface. Once this is established, the next step is to increase the usability and overall performance of the graphical user interface, via the results of the research and analysis. The final step is to create a new model demonstrating how a high usability user interface can promote the optimal use of a software application.


Solitary confinement, despite a lengthy history, has drawn recent attention as its use increased precipitously. When considering the evidence of the psychological problems suffered by those inmates in solitary confinement, one might consider whether it is necessary to force prisons to change their policies. The Prison Litigation Reform Act (PLRA) streamlined the cases that could be reviewed by the courts, most notably those which were absent physical injury; however, its
textual and practical applications differ widely. Even accepting the most inmate-friendly PLRA context; however, the burden of proof for inmates is heavy, perhaps overly so. After analyzing the history, review process, psychological studies and international standards of solitary confinement, and a few relevant sample cases brought before the courts, I will suggest some policy solutions to ensure constitutional accordance.


Louis Spohr was an early Romantic composer who completed ten symphonies during his lifetime. The focus of this presentation will be on the Seventh Symphony of Spohr, written in 1841, and subtitled “Iridisches und Gottliches im Menschenleben” (The Earthly and Divine in Human Life). The intricate and ubiquitous interrelationships between narrative and meaning in Spohr’s program symphony give the work as a whole a strongly unified conception. As a result, it is a precursor to the cyclic form works of later Romantic composers such as Franz Liszt. The great degree to which music and programmatic content are fused in this work is significant, secondly, because it was one of the first times a composer had gone to such lengths to depict the extra-musical in a large-scale work. Finally, Spohr’s seventh marked an early instance in which narrative and meaning were present simultaneously in a program symphony.

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Oral Presentation Session XV
LC 12


Through select works of Jane Austen (Sense and Sensibility and Pride and Prejudice) and Oscar Wilde (An Ideal Husband and The Importance of Being Earnest), this project explores the purposes of marriage in 19th Century British Literature. The presentation covers the last chapter of this project which examines the institution of marriage as a setting in which characters perform their relationships. Austen’s novels contain actors and audience members; often times, characters play both simultaneously. Wilde’s works constantly remind the reader or the audience that they are plays (rather than hide the plays’ fictitious nature for the sake of realism) and show how fiction can reveal the constructed nature of institutions such as marriage. In these ways, Austen and Wilde reveal marriage as a perpetual social construction which is upheld by a desire to be entertained and an aversion to deviating from the norm.

Emmette Hawkins, “Chapel House, A History,” Project or Assignment for a Course, Journalism. Project Advisor: Dr. Gerald Zahavi

This project describes the establishment of Chapel House at UAlbany. Before 1950, if you were a student at UAlbany there was nowhere on campus you could go to seek spiritual council. Today Mass is held in the Campus Center and there are Hillel services on Fridays. The events that lead to these strides are detailed in this paper.

Candice Mann, “Forgetting to Remember, Remembering to Forget: The Struggle to Recall Happy Memories,” Senior Thesis Project. English Honors. Project Advisor: Dr. Jeffrey Berman

If memory itself is a fickle function, how can I then rely on my memories to provide me with an accurate depiction of my experiences? How can I, then, rely on my memory to allow me access to my “true” memory if I am unable to trust what I “recall”? How can I even begin to understand my identity, when the memories of my experiences are constantly in question? This project is going to explore the terminology that impacts the definitions of memory, as well as exploring the depths in which traumatic memories affect my ability to recall non-traumatic memories, and how it impacts my identity as a victim/survivor of my traumatic memories and experiences. I will also explore how present experiences of happiness impacts the function of time, and its perception, upon memory.

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For my undergraduate research project, I have been studying the life and works (musical) of Francesca Caccini (1587-after 1641), one of the first woman composers of major classical and operatic works in the 16th and 17th centuries. Francesca Caccini is considered to be one of the most influential European composers of her time, after Hildegard Von Bingen. She was also a singer, lutenist, poet, and music teacher in the Italian courts. It is important to recognize such composers, especially female, in order to better understand the social and musical development of female musicians within our world. Focus has long been on the male relationships to music, and how the male dominated musical world has developed, but the female development within music is just as significant, if not more, since it is a lesser known subject to scholars and researchers. In studying Francesca Caccini, who was not only a famous composer, but also had immense wealth, ownership of land, and was a prominent figure in the Medici court, we can better fill in the gaps of our knowledge of female musicianship.

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