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For more information and updates to the schedule, visit our website at WWW.JCU.EDU/RESEARCH/CELEBRATE



OPENING NIGHT LECTURE

Monday, March 19, 2007

5:30 PM

Dolan Science Center, Donahue Auditorium

Mitsui Distinguished Lecture

Sponsored by East Asian Studies

*The Politics of H2O: Political Pluralization and
Hydropower Policy in China*

ANDREW MERTHA

SPECIAL LECTURE

Wednesday, March 21, 2007

7:00 PM

Grasselli Library, Muer Room

"Scholarly Communication, Strategies for Change"

Ray English

Azariah Smith Root Director of Libraries, Oberlin College

Sponsored by Grasselli Library



THE ARTS AT LUNCH

Monday, Tuesday, and Thursday: 12:00-1:15 PM

Lombardo Student Center Atrium

Stop by the LSC Atrium on your lunch break and listen to music, hear some poetry, and enjoy the arts at lunch. Hosted by Dr. Cynthia Caporella and Dr. Philip Metres. Schedule of performers will be available on the *Celebration* website:

www.jcu.edu/research/celebrate

THE ART EXHIBIT

Monday-Friday

Grasselli Library Lobby

Visit the Grasselli Library all week to view the artistic displays highlighting some of the creative works by JCU community members. Prizes will be awarded by the Student Arts Organization. See the website for a list of presenters.

THE PHOTOGRAPHIC EXHIBIT

Jonathan Tramontana: “Just say no to snapshots:

A behind the scenes look at selected photos”

Monday-Friday

Administration Building, First Floor & Garden Level

Great photos involve more than just “point and shoot.” This display will give a detailed explanation of the photographic thought process for each photo. From basic photographic theory to more advanced subject-photographer relationship building, creating better photos involves subject-oriented planning and flexibility. This project is based on an independent study research paper in Communications and constitutes Jonathan's Honors Senior Project. Faculty Advisor: Professor Robert Noll. Funding provided by the Honors Program.



Schedule of Events

Monday, March 19, 2007

- 12:00-1:15 PM **Arts at Lunch**
Lombardo Student Center Atrium
(see website for schedule)
- 3:15 PM **Faculty Research Reception**
Sponsored by the Academic Vice President &
the Academic Deans
By invitation only
- 5:30 PM **Mitsui Distinguished Lecture**
“The Politics of H2O: Political Pluralization and Hydropower
Policy in China”
Andrew Mertha
Sponsored by East Asian Studies
Dolan Science Center, Donahue Auditorium

Tuesday, March 20, 2007

- 10:00-11:30 AM **Paper/Panel Session A**
Dolan Science Center, A202
PANEL: “Conflict & Compromise in the Labrang Community:
Cultures of the Sino-Tibetan Borderlands”
Moderator: Dr. Nietupski
Panelists: Melissa Cigoi, Nick Mercurio, Alecia Ott, Rosemary
Stanitz-Skove, Jeff Villanueva
- 10:00-11:30 AM **Paper/Panel Session B**
Dolan Science Center, A203
Moderator: Dr. Stiles
(B.1) Desmarie Carter:
(B.2) Dr. Gregory DiLisi: “Thank You for Flying the Vomit Comet”
(B.3) Dr. John Rausch: “Interrater Reliability Methods for Nominal
& Qualitative Data”
(B.4) Dna. Maria St. Catherine De Grace Sharpe: “Vatican Studies/
Divinity, Intelligence & Diplomacy”



Tuesday, March 20, 2007 (continued)

- 12:00-1:15 PM Arts at Lunch
Lombardo Student Center Atrium
(see website for schedule)
- 1:30-3:00 PM **Paper/Panel Session C**
Dolan Science Center, A202
Moderator: Mr. McGibony
(C.1) Alicia Miller: "The Impact of McDonald's in Japan"
(C.2) Ashley Boone: "New Approaches to Basic Public Speaking Requirements: Storytelling"
(C.3) Vanessa Esquibel: "Social & Cultural Capital Acquisition through a Middle School Science & Math Program"
(C.4) Dr. Lisa Shoaf: "Close Examination of an Online Charter School"
- 1:30-3:00 PM **Paper/Panel Session D**
Dolan Science Center, A203
PANEL: "John Paul II and Women in the Church"
Moderator: Fr. Shubeck
Panelists: Brian Bremer, Linda Kawentel, Nicholas Kuhar & Jason Shifflet
- 3:30-5:00 PM **Paper/Panel Session E**
Dolan Science Center, A202
PANEL: "Perspectives of Genocide: Insight on Darfur"
Moderator: Dr. Peden
Panelists: Abbey Fox, Andrew Fernandez, Marissa Patsey
- 3:30-5:00 PM **Paper/Panel Session F**
Dolan Science Center, A203
Moderator: Dr. Mason
(F.1) Candice Monroe: "Color Has No Action"
(F.2) Elizabeth Holowecky: "Commercialization of Religion in Japan: Illustrated through Temple Markets"
(F.3) Katie Homar: "The Wife of Bath as an Embodiment of Chaucerian Poetic Practice"
(F.4) Dr. Nancy Taylor: "The Spirituality of Career Choice: Living a Life that Matters"



Tuesday, March 20, 2007 (continued)

5:30-7:00 PM **Paper/Panel Session G**
Dolan Science Center, A202
PANEL: "Development of Caring Dispositions in Children in Cleveland & Buffalo: Kindergarten Teachers' Experience"
Moderator: Dr. Fabrykowski
Panelists: Dr. Krystyna Nowak-Fabrykowski, Monica Helinski, April Reed

5:30-7:00 PM **Paper/Panel Session H**
Dolan Science Center, A203
PANEL: "Human Illness & Medical Care: The Interface of Biology & Culture"
Moderator: Dr. Long
(H.1) Tom Albani, Megan Kolupski, Brittany Krist: "Persian Gulf War Syndrome: The Conflict through American Medicine & Culture"
(H.2) Randy Stalter, John Francis, Frank Santoiemmo, Matt Thi: "ALS & the Cultural Influences on Patient Treatment"
(H.3) Melissa Cigoj, Jamie Rhodes, Laura Siciliano: "Gilles de la Tourette Syndrome: A Qualitative Approach"
(H.4) Brittany McLane: "Chinese Acupuncture in Northeast Ohio: Practitioner Attitudes Regarding Western Influence & State Policy"

Wednesday, March 21, 2007

10:00-11:30 AM **Paper/Panel Session I**
Dolan Science Center, A202
Moderator: Dr. Donnelly
(I.1) Josh Brickner: "Voter Participation among Adolescents & Young Adults"
(I.2) Timothy Dunn: "The Spiritual Exercises—A Call to Justice"
(I.3) James Menkhaus: "The Spiritual Exercises of St. Ignatius through Shakespeare"
(I.4) Dr. Francis Ryan: "Resisting the Absolute Monarch: Thomas Becon's *The New Polecy of Warre* (1542)"

10:00-11:30 AM **Paper/Panel Session J**
Dolan Science Center, A203
PANEL: "Broadcast Interviewing"
Moderator: Dr. Schmidt
(J.1) Sean McClure & Jillian Dansko: "Interviewing Styles in the Colbert Report"
(J.2) Crista Spehar & Eileen Krock: "Comparison of Male & Female Broadcast Interviewing Styles"
(J.3) Robert Duns: "Interviewing in Serious & Non-Serious Television Shows"



Wednesday, March 21, 2007 (continued)

12:00-1:15 **Course Development Lunch**

PM

Faculty Lounge

Reservations Requested; Faculty only

Moderator: Dr. Jeanne Colleran

Presenters: Dr. James Lissemore, Biology; Dr. Marc Kirschenbaum, Mathematics & Computer Science; Dr. Graciela Lacueva, Physics; Dr. Denise Ben-Porath, Psychology; Dr. Richard Greci, Management, Marketing & Logistics; Dr. Jen McWeeny, Philosophy

1:30-3:00 **Paper/Panel Session K**

PM

Dolan Science Center, A202

PANEL: "Issues in Mass Media Ethics"

Moderator: Sr. Flannery

(K.1) Leisa Campbell: "Defining Intellectual Property as It Relates to Technology & Global Ethics Policies"

(K.2) Zachary Egnot: "Game of Shadows: The Ethics of Anonymous Sources in Sports Reporting:"

(K.3) Michelle Dunphy: "Advertising in an Era of Product Integration: Clever or Unethical?"

(K.4) Jared Petsy: "Media of the Streets: Legitimizing Graffiti as Art & Culture in the Face of Criminal Stereotypes"

1:30-3:00 **Paper/Panel Session L**

PM

Dolan Science Center, A203

Moderator: Ms. Fenske

(L.1) Sarah Widman: "Rationalizing away Guilt: The Role of Cognitive Disorders in Academically Dishonest Behaviors"

(L.2) Mei-Ling Rivera-Cerezo: "Independence, Statehood, & the Problem of Puerto Rican Colonization"

(L.3) Jacqueline Hicks: "A Descriptive Analysis of College Student Perceptions of Inmate Access to Privileges"

(L.4) Katharine Anne Gabele: "Mushroom Clouded Memories: The Atomic in Film"

3:30-5:00 **Paper/Panel Session M**

PM

Dolan Science Center, A202

PANEL: "History, Memory, & Identity in Northern Ireland: Experiences of the Belfast Summer Institute"

Moderator: Drs. Peden & Wiedenhoft

Panelists: Krista Corabi, Matt Harmon, Linda Kawentel, Miriam McGinn

Moorer, James Murphy, MARRISA PATSEY, David Schuld, Katie Sedon



Wednesday, March 21, 2007 (continued)

- 3:30-5:00 PM **Paper/Panel Session N**
Dolan Science Center, A203
PANEL: "East Asian Art History"
Moderator: Dr. Chou
(N.1) Meredith Lea: "Ma Yuan & his *Bamboo and Duck by a Rushing Stream*"
(N.2) Matthew Chmielewski: "The Art of Gesture: Retelling of Kabuki Theatre Utilizing Woodblock Prints"
(N.3) Wes Johansen: "Hakuin Ekaku and Zenga"
(N.4) Natalie Wilson: "The Noh Mask: An Investigation into the Act of Ancient Japanese Theatre"
- 5:30-7:00 PM **Paper/Panel Session O**
Dolan Science Center, A202
PANEL: "Poetry as Discovery: A Reading & Discussion of Poetry Writing by Students"
Moderator: Dr. Metres
(O.1) Christopher Kempf: "Patriot Acts"
(O.2) Robert Kumazec: "The Apple Press"
(O.3) Rhiannon Lathy: "The Picture She Hides"
- 5:30-7:00 PM **Paper/Panel Session P**
Dolan Science Center, A203
PANEL: "Contemporary Social Issues"
Moderator: Dr. Harris
(P.1) Elizabeth Mahoney, Erin Odachowski: "Teen Pregnancy & Poverty"
(P.2) Jenny Denton, Laura Siciliano: "Domestic Violence: Causes, Consequences, Connections to Poverty, & What is being Done"
(P.3) Rachel Mihna: "The Black-White Achievement Gap"
(P.4) Scott Adams: "International Social Security Privatization"
- 7:00 PM **Lecture: "Scholarly Communication, Strategies for Change"**
Ray English
Azariah Smith Root Director of Libraries, Oberlin College
Sponsored by Grasselli Library
Muer Room, Grasselli Library



Thursday, March 22, 2007

10:00-11:30 **Paper/Panel Session Q**

AM

Dolan Science Center, A202

PANEL: "Girls Gone Subordinate: Reinforcement of Negative Stereotypes of Women"

Moderator: Dr. Dianna Taylor

Presenters: Abbey Fox;, Katherine Sedon; Erin Jackson; Julie Mrozek; Monica Kwiatkowski

10:00-11:30 **Paper/Panel Session R**

AM

Dolan Science Center, A203

PANEL: "Grauel & Summer Research Faculty Presentations"

Moderator: Dr. Beadle

Presenters: Dr. Gerald Guest, Art History & Humanities

Dr. Larry Schwab, Political Science

Dr. Dan Palmer, Mathematics & Computer Science

1:30-3:00 **Paper/Panel Session S**

PM

Dolan Science Center, A202

PANEL: "Political Issues of the 21st Century: Governance, Nationalism, and Regional Hegemony"

Moderator: Dr. Hahn

(S.1) Joshua Marcin: "Using Political Pressure to Seek Economic Dominance in a Post-Cold War Latin America"

(S.2) Douglas Walton: "Neoliberalism & Identity: Nationalist & Indigenous Movements in Bolivia & Ecuador"

(S.3) Ilya Batikov: "From Bombs to Ballots-The Hamas Movement in Governance: January-November 2006"

1:30-3:00 **Paper/Panel Session T**

PM

Dolan Science Center, A203

PANEL: "The Complexities of Poverty"

Moderator: Dr. Harris

(T.1) Alison Cyperski, Angela Hughes: "The Effect of the HIV/AIDS Pandemic"

(T.2) Mary Ellen Madden, Rachel Munford: "The Relationships among Poverty & Substance Abuse"

(T.3) Scott Adams, Elizabeth Frimel: "Psychology of Poverty"

(T.4) LeTanya Cintron, Alana Hernandez: "Poverty & Recidivism"



Thursday, March 22, 2007 (continued)

- 3:30-5:00 PM **Paper/Panel Session U**
Dolan Science Center, A202
PANEL: "Border Encounters: JCU Students in Tijuana"
Moderator: Dr. Kolesar
Presenters: Jillian Kaltenbach, Jessica Serbin, Douglas Walton,
Jonathan Tramontana
- 3:30-5:00 PM **Paper/Panel Session V**
Dolan Science Center, A203
Moderator: Dr. Krukones
(V.1) Gretelyn Button: "Literature Review of the Factors Affecting Student Success within the Economics Major"
(V.2) Sahar Shouman: "Charter Schools: A Better Alternative?"
(V.3) Diamond Summers: "The African American Concept of Death: Associated with African Heritage & Christianity"
(V.4) Katherine Sedon: "Virginia Woolf & Mother Nature: The Aging Female Archetype in Society & Poverty"
- 5:00 PM **Reception for Participants**
(By invitation only)
- 6:00-7:30 PM **Paper/Panel Session W**
Dolan Science Center, A202
PANEL: "Green Chemistry"
Moderator: Dr. Kwan
(W.1) Brad Hauser: "Pros and Cons of the Use of Coal"
(W.2) Paul Schroder: "Biofuels"
(W.3) Dr. Miles Coburn: "JCU's BL 331 Course: Global Climate Change"
(W.4) Matt McDiarmid: "Green Chemistry: Money and the Environment"
(W.5) Philip Zuzolo: "Renewable Energy Sources for the Near Future"
(W.6) Katherine Conry: "Green Building"



Thursday, March 22, 2007 (continued)

6:00-7:30 **Paper/Panel Session X**
PM *Dolan Science Center, A203*
PANEL: "Senior Honors Projects in the Humanities & Social Sciences"
Moderator: Dr. Kolesar
(X.1) Kristy Calaway: "Testimonial Literature:: Its Importance, Relevance, & Efficacy in Latin America"
(X.2) Rhianon Lathy: "The Picture She Hides: A Collection of Poems"
(X.3) Joseph Rich: "Inherited Genetic Modifications & Their Impact on Future Generations"
(X.4) Margaret Virostek: "The Effect of Mortality Salience & Authoritarianism on Judgments of Arab vs. European American"

6:00-7:30 **Paper/Panel Session Y**
PM *Dolan Science Center, E130*
PANEL: Grauel & Summer Research Faculty Presentations
Moderator: Dr. Beadle
Presenters: Dr. Phillip Metres, English; Dr. Michael Nichols, Chemistry; Dr. Joseph Kelly, Religious Studies

7:00-8:30 **Poster Session**
PM *Dolan Science Center, Muldoon Atrium*
Refreshments

(See page 31 for a list of presenters and abstracts. Posters with an "a" designation will present from 7:00 to 7:45 and while "b" posters will present from 7:45 to 8:30 PM.)

See also the "Spotlight on Psychology" poster displays on the second floor of Dolan East.





PAPER & PANEL ABSTRACTS

(A) “Conflict & Compromise in the Labrang Community: Cultures of the Sino-Tibetan Borderlands”

Melissa Cigoi, Nick Mercurio, Alecia Ott, Rosemary Stanitz-Skove, Jeff Villanueva, Undergraduates; Advisor: Prof. Paul Nietupski, Religious Studies

This Freeman Foundation funded, collaborative study of the Sino-Tibetan borderlands focused on the Labrang Tibetan Buddhist Monastery and its former properties. The nomadic and partially agrarian community is located on the Tibetan Plateau in modern-day southern Gansu Province, People’s Republic of China. Five John Carroll University students and their faculty mentor investigated different components of this community and discovered that traditional cultures maintain their integrity in the face of rapid socioeconomic and political change. As the group traveled through Labrang’s borderland communities, each member drew on his or her own interests and expertise to study key issues involving tradition and modernization in cultural context. These included political structures, the role of art and visible artifacts in people’s ideologies and daily lives, concepts of disease, wellness and available therapies, local music traditions, and educational systems. The group developed an interdisciplinary perspective on this rapidly changing part of China

(B.1) Desmarie L. Carter, Undergraduate

All students of John Carroll University pursuing a degree in education are required to take ED 350, more specifically Multicultural Education in a Pluralistic Society. This course incorporates cultural, racial, ethnic, socio-economic, gender, and individual differences and their effects on American education and society studied from sociological historical and philosophical perspectives. It also addresses the development of human-relations skills to tackle diversity issues. Intended as a tool for future teaching, exactly how much information obtained from this course is utilized in the classroom? To answer this question, John Carroll University education graduates within the last three years who are currently teaching were surveyed. Collected information related to specific strategies of authentic multicultural education that the teachers currently used is the primary focus of this research. Additionally, information related to the level and types of diversity within the school and classroom in which the teachers work is the secondary information obtained.

(B.2) “Thank You for Flying the Vomit Comet”

Dr. Gregory A. DiLisi, Education & Allied Studies; Robert Dempsey, Johnson Space Center, Houston, TX ; Lori A. DiLisi, Parker Hannifin Corporation, Nichols Airborne Division, Elyria Gretchen Santo, Beaumont School for Girls, Cleveland Heights

This paper describes our flight aboard NASA’s C9 “Weightless Wonder,” an aircraft that creates multiple periods of microgravity by conducting a series of parabolic maneuvers over the Gulf of Mexico. Because passengers often develop motion sickness during these parabolic maneuvers, the C9 is more affectionately known as the “Vomit Comet.” To celebrate the 2005 World Year of Physics, the American Association of Physics Teachers (AAPT) and NASA co-sponsored a contest in which teams of high school students and their mentors could fly an experiment aboard the Vomit Comet. If selected, students would develop their experiment and travel to Houston to serve as “ground crew” while the mentors would actually fly aboard the C9 to perform the experiment.



PAPER & PANEL ABSTRACTS

(B.3) “Interrater Reliability Methods for Nominal and Qualitative Data”

Dr. John L. Rausch, Education & Allied Studies

The purpose of this paper is to trace the history and development of Cohen's kappa (1960) as a means of establishing interrater reliability for nominal or qualitative data. Multiple rater procedures are specifically addressed. Results from using Conger's (1980) g-wise multiple rater kappa procedure are presented that were generated from a grounded theory qualitative study.

Cohen's weighted kappa (1968) can be utilized for training purposes when one wants to compare the ratings of students who are in training with an "expert." Interrater reliability can be utilized in many disciplines whenever there is a desire to compare different ratings of nominal or qualitative data, including Education, Psychology, Counseling, Medicine, Science, or Business, among others.

(B.4) “Vatican Studies: Divinity, Intelligence & Diplomacy: A Discourse on Holy See Diplomatic Affairs by an Oxford Ecclesial Diplomatic Scholar”

Dna. Maria St. Catherine De Grâce Sharpe, Eccl. Dipl. (Oxon.), t.o.s.m., T.O.SS.T., Political Science & Philosophy

In 2007, the Church of Rome marks several historic diplomatic anniversaries; the 630th year of the end, in 1377, of the papal exile in Avignon, France, the 40th year since the 1967 establishment of the Pontifical Council for Justice and Peace, the 25th year of restored Holy See-U.K. diplomatic relations in 1982, the 20th anniversary of Pope John Paul II's 1987 encyclical “Sollicitudo Rei Socialis,” honoring Pope Paul VI's 1967 encyclical, “Populorum Progressio,” (also marking its 40th anniversary), and the 10th anniversary of the 1997 death of Jesuit Vatican diplomatic scholar, Rev. Robert A. Graham, S.J., Dna. Maria St. Catherine Sharpe, ecclesial diplomatic scholar born on the feast of St. Catherine of Siena, former U.S.A.F., Intelligence Officer, and an Oxford diplomatic studies (Kissinger scholar) alumna with distinction in Political Science, and a doctoral specialization in Pontifical Ecclesiastical Law, Diplomacy and Human Rights, shares her expertise in Holy See Diplomatic Affairs.

(C.1) “The Impact of McDonald's in Japan”

Alicia Miller, Undergraduate; Advisor: Keiko Nakano, Classical & Modern Languages & Cultures

McDonald's has done much more than give the Japanese an opportunity to eat at a place that serves American foods; it has permanently influenced and changed the economy, trends and lifestyles of Japan. Although the United States had great influences on the food selection, table manners, service, and popular icons of Japan, Japan kept parts of their own culture and combined the two for their own, unique Japanese McDonald's. For this topic, research was done on the history, menus, food, and table manners using various books and articles. Along with these sources, I gathered firsthand information from interviews, surveys, and finally our Pop Culture Study Tour trip to Japan. The research, interviews, surveys, and visit to Japan all helped to prove that while being greatly influenced by the introduction of McDonald's, Japan has held its own culture and combined it with some American traditions.

(C.2) “New Approaches to Basic Public Speaking Requirements: Storytelling”

Ashley Boone, Undergraduate

In an age of the Internet and cellular phones, communication is at our fingertips. Regardless of these technological progressions we occasionally still struggle to express ourselves in a way that moves and persuades an audience to join us. The basic course could greatly improve the speech quality and effectiveness by adding other aspects of public speaking. Storytelling, an age-old art form, is becoming more popular and, when used in public speaking, embodies



PAPER & PANEL ABSTRACTS

Aristotle's concepts of persuasion. The product is then an experience that is enjoyable and productive for both the speaker and the audience. This paper explores the need for further public speaking instruction beyond what is currently covered in CO 100, the face of public speaking courses at other universities and institutions, the rise and benefits of storytelling in the public speaking arena, and how storytelling can be added to the current John Carroll curriculum.

(C.3) "Social and Cultural Capital Acquisition through a Middle School Science and Math Program"

Vanessa Esquibel, Undergraduate

Cultural and social capitals play a key role in determining how far a student will pursue education. Cultural capital is the "cultural and linguistic background acquired according to the demand and expectations of schools" and social capital is the "networks of interaction and resource exchange that facilitate the transfer of other better known forms of capital: physical, cultural, and human" (Valenzuela and Dornbusch, 1994). This research will be based on the children and families that are apart of the summer program ¿Project QUE? In preparation for ¿Project QUE? an extensive literature review addressing middle school populations will be completed. The information gathered from the families will examine how ¿Project QUE? has impacted the students and families acquisition of social and cultural capital needed to succeed in an educational environment.

(C.4) "Close Examination of an Online Charter School"

Dr. Lisa M. Shoaf, Education & Allied Studies

The number of charter schools has increased to nearly 2,400 across the United States. The movement has advanced to include technology in the form of online learning. This study focuses on the advantages and disadvantages of an online charter school. The research examines data from focus group discussions with the parents, students, and teachers at the online charter school. Overall, the constituents involved in the online charter school were satisfied with the educational service at the charter school. Students at the charter school performed lower than the state average of all schools (including public schools), but they performed better when compared to a similar school as defined by the state board of education. The online charter school experienced improvement in the report card rating from a designation of "Academic Watch" to "Continuous Improvement." Based upon constituent satisfaction and increasing student achievement, the online charter school in this study is becoming competitive with traditional public schools.

(D) "John Paul II's Thought on Women within the Church: His original thought & competing schools"

Brian Bremer, Linda Kawental, Nicholas Kuhar, and Jason Shifflet, Undergraduates

Our presentation will focus on the writings of John Paul II with regards to women within the context of the Church and the world. Also, responses by Catholic theologians to his writings will also be presented, both positive and critical.

(E) "Perspectives of Genocide; Insight on Darfur"

Abbey Fox, Andrew Fernandez, Marissa Patsey, Undergraduates

We are all familiar with genocide. It has determined many facets of the global political landscape in the 20th and 21st century. Despite how much we talk about genocide and how familiar we all seem to be with this subject, the concept is more illusive than we think. The situation in Darfur demonstrates the illusive nature of genocide. In this panel, we will be discussing the philosophical and political perspectives of genocide. We will be presenting a history of the conflict in Darfur and how it constitutes membership in the category of genocide. In addition, we will be providing avenues through which the politically active scholar can get involved in the fight against this genocide.



PAPER & PANEL ABSTRACTS

(F.1) “Color Has No Action”

Candice Monroe, Undergraduate; Advisor: Dr. Bowen, Political Science

In this presentation I will discuss how people categorize race by the way people walk, talk, dress, the group one associates with, the way people perform in school. The goal of my research project is to find out why people put certain actions with certain races and pursue the implications of that. I will ask the question “What does it mean when people say, “That person is acting white/black?” Is it society’s way of looking at race? I will determine this by researching the topic which entails reading the proper literature from various social science disciplines and getting feedback from the John Carroll University Community using either focus groups, a brief survey, or both. I hope that my research project will make people understand that if a person doesn’t follow the certain stereotypical roles of their race does not mean they are denying their race.

(F.2) “Commercialization of Religion in Japan: Illustrated through Temple Markets”

Elizabeth Holowecky, Undergraduate

In Japan, the buying and selling religious and non-religious items in and around temples and shrines is common practice. Among the many differences between western and eastern religion, the openness to commercialization in Japanese religion particularly interested me. After doing some research, I tried to further understand why this was. My visit to Japan allowed me to further examine the concepts of my research in person and to gain a much greater understanding of the culture as a whole. I visited many shrines and temples and observed the markets surrounding them, along with other aspects of Japanese society. I learned first hand how Japanese culture beautifully blends religion, community, family and commercialization to create a meaningful way of life.

(F.3) “The Wife of Bath as an Embodiment of Chaucerian Poetic Practice”

Katie Homar, Undergraduate; Advisor: Dr. Moroney, English

Although critics often characterize Chaucer’s Wife of Bath as an abstract metaphor for the text, stylistic parallels between Chaucer and the Wife make her a layered reflection of the male poet and invite a new reading of Alisoun’s function. Both the poet and his character participate in and criticize accepted medieval rhetorical practices through their incorporation of authoritative sources and awareness of the subjectivity inherent in such interpretations. Alisoun’s critique of this hermeneutic mirrors Chaucer’s larger exploration of literature’s function in the Canterbury Tales. Thus, the Wife’s Prologue and Tale serve as a miniature version of Chaucer’s oeuvre, contrary to critics who posit that the Wife’s pieces are stereotypically feminine and hence reduced. Alisoun’s techniques including a domineering persona, a digressive structure and hyperbolic stock phrases are all representative of Chaucerian poetics. In general, this paper advocates a more active function for the Wife of Bath by examining her role as a version of Chaucer himself.

(F.4) “The Spirituality of Career Choice: Living a Life That Matters”

Dr. Nancy Taylor, Education & Allied Studies

For some people the process of entering into the world of work may have been no more than drifting into an available position, imitating what a friend is doing, or being conditioned by a parent or authority figure to do what is expected. In each of these instances what is lacking is a “real” choice. Others may view their career choice as an outlet for doing work that gives meaning and purpose to their lives. A primary connection between spirituality and career choice is the notion of vocation, a calling to be in the world in a way true to yourself and in a way that makes a meaningful contribution. This paper presents the steps to developing one’s spirituality that are in alignment with the steps one takes to make a “real: career choice that answers the question: “What on earth am I here for?”



PAPER & PANEL ABSTRACTS

(G) “Development of Caring Dispositions in Children in Cleveland & Buffalo: Kindergarten Teachers' Experience”

Dr. Krystyna Nowak-Fabrykowski, Education & Allied Studies; Monica Helinski, April Reed, Graduate Students

Moving from ethical awareness to deeper understanding and practice: Kindergarten Teachers' experience with developing caring dispositions in children. The goal of this research is to seek information from the Cleveland (Ohio) and Buffalo (New York) area kindergarten teachers about their experience in developing caring dispositions in children. Two hundred questionnaires were sent, one hundred to each city. There was a low response rate of less than 10 percent from both cities. Qualitative method of data analysis based on descriptive and thematic approach was applied. The results showed how the teachers model and practice caring. It gives examples of the programs and many books those teachers are using for teaching caring. It also provides advice to new teachers how to model, practice and teach caring.

(H) PANEL: “Human Illness & Medical Care: The Interface of Biology & Culture”

(H.1) “Persian Gulf War Syndrome: the Conflict Through American Medicine and Culture”

Tom Albani, Megan Kolupski, Brittany Krist, Undergraduates

Like its predecessors, Gulf War Syndrome (GWS) has endured a great deal of controversy since its introduction into American culture. The veterans and the media sympathetic to their ailments contrast the government's stance about GWS: whether or not the war is responsible for the occurrence of these symptoms in veterans, if the government should be held accountable, and even whether or not GWS actually exists. Since the end of this conflict Gulf War veterans have been voicing concern for numerous health issues. The returning soldiers and other participants experienced varying symptoms. This multitude of symptoms only adds to the difficulty in the diagnosis of an already complicated and controversial syndrome. The government has argued that many of the symptoms exhibited by veterans are simply results of other diseases in a new context. It is our feeling, however, that GWS should be recognized as its predecessors have been.

(H.2) “ALS and the cultural influences on patient treatment and coping strategies”

Randy Stalter, Frank Santoiemmo, John Francis, Matt Thi, Undergraduates; Advisor: Dr. Long, Sociology

Nearly 6,000 Americans are diagnosed each year with amyotrophic lateral sclerosis (ALS). This degenerative neuromuscular disease is incurable, leaving sufferers to deal with the inevitable experiences of chronic weakness and fatigue, paralysis, and ultimately death. Growing awareness for the disease has led to an increased focus on treating ALS. However, due to the still present ambiguities of the disease, many interpretations have been developed in terms of diagnoses and treatments. The biomedical system has developed indirect methods for diagnosis and has introduced alleviating drugs such as Riluzole and Myotrophin. Alternative methods have also become a popular option. For example, Traditional Chinese Medicine offers such methods as acupuncture and herbal remedies that have proven effective for some. In addition, many believe that dealing with the disease requires the adoption of special individual coping strategies or participation in support groups. Whatever the method, the individual's particular culture ultimately impacts his or her course of action.



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(H.3) “Gilles de la Tourette Syndrome: A Qualitative Approach”

Melissa Cigoi, Jamie Rhodes, Laura Siciliano, Undergraduate; Advisor: Dr. Long,
Sociology

Gilles de la Tourette syndrome (TS) is a condition of the brain in which overactive neurons cause uncontrollable motor and phonic tics. Tourette syndrome has not always been viewed as a disorder with an organic cause, but present research is helping define a genetic link. Understanding stereotypes and stigmas related to TS is important when considering the biological complications and social functioning that an individual must reconcile with daily life. In this investigation of Tourette syndrome, we use a personal perspective to describe social implications, while also conducting a case study of a person suffering from TS. Jeff Matovic is an example of an individual who was able to gain control over his TS symptoms and overcome these limitations through the use of both biomedicine and social support systems. Beyond the scope of biomedicine, societal change is necessary to change the way that people view individuals who are different from themselves.

(H.4) “Chinese Acupuncture in Northeast Ohio: Practitioner Attitudes Regarding Western Influence and State Policy”

Brittany McLane, John Carroll alumnae; Advisor: Dr. Long, Sociology

Acupuncture's introduction to U.S. medicine during the past thirty years has been met with both great anticipation and great skepticism. Though Eastern and Western medicine are often defined in opposition to one another, they share some epistemic similarities that often make possible complimentary medical techniques. In this study, I explore the antagonism between Eastern and Western schools of thought by examining the attitudes of six Cleveland acupuncturists toward their field of study and toward Ohio statutes governing the practice of acupuncture. A series of face-to-face interviews sought in the greater Cleveland area between February and May of 2006 comprise the source work for this study. During the course of these interviews, practitioners offered a number of ways Eastern and Western approaches might be combined to provide better patient care further illustrating that the paradigms may already complement each other; these are highlighted throughout the paper.

(I.1) “Voter Participation Among Adolescents & Young Adults”

Josh Brickner, Undergraduate

This project will focus on both the voting participation and trends among adolescents and young adults aged 18-22. The study will include a survey of this specific population. This survey will use the last two major national elections (2004 & 2006) as benchmarks and focus on four important questions; whether or not the individual actually voted, which political party they identify with, what issue most influenced their vote, and what outside factor played the biggest factor in their decision. The results of the survey will be compared with national averages; also past literature will be reviewed to determine why these specific voting behavior are adopted. STARS Research Abstract.

(I.2) “The Spiritual Exercises—A Call to Justice”

Timothy Dunn, Graduate Student

The Exercises are a privileged form of Catholic apostolic spiritual formation. In the contemporary world they have also become a guide for solid commitment to social justice. This is an exploration of how the Exercises can be adapted to the needs of our times and serve as a call to social justice action. First, there will be a brief introduction to Ignatian Spirituality. Then



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there will be a closer examination of the Spiritual Exercises, analyzed and examined in terms of its social justice implications.

(I.3) “The Spiritual Exercises of St. Ignatius Through Shakespeare”

James Menkhaus, Part-time Instructor, Religious Studies

The Spiritual Exercises of Ignatius Loyola are both a classic of Christian spirituality and a contemporary tool for Christian contemplation, vocational discernment, and apostolic service. The Ignatian process is not only one of reflective analysis and meditation but also one that invites emotional response, affective appropriation, and symbolic representation. Usually explanations of the Exercises emphasize what they say and where they lead, but the experience of the Exercises is more diffuse and complex. This presentation attempts to explore this affective complexity by applying the theme of selected Shakespearean plays to the potential affective movements created by undergoing the Spiritual Exercises.

(I.4) “Resisting the Absolute Monarch: Thomas Becon’s The Newe Polcey of Warre (1542)”

Francis X. Ryan, SJ, D Phil, English

During the 1542 war-scare with France, Thomas Becon publishes a pamphlet entitled, *The new pollecey of warre* (RSTC 1735) which offered the curious subtitle “how ye enemies of Christen Publique weale maye be ouercome & subdued”. Though the treatise begins with an encomium to love of country, it is actually a subversive agitation for an England whose wealth is redirected and whose religion is reformed. For Becon, a priest on the run who had been convicted of heresy, identifies the means to victory as “unfained conversion” and the rejection of “traytorous imaginacions” his code phrase for idolatry and the novel doctrines of the papists. The pamphlet presents a concerted social agenda for the nation which must be reformed in religion and in a redirection of the wealth and power in favor of the weak and the powerless. [The research for this paper is due to the support of John Carroll University in a Grauel award for 2005-2006]

(J) PANEL: “Broadcast Interviewing”

(J.1) “The Colbert Report”

Jillian Dansko and Sean McClure, Undergraduates

This study examined the interviewing style of Steven Colbert host of *The Colbert Report*, a half hour report tackling news issues seen on Comedy Central. During the show, Colbert interviews a series of guests, many political figures, and tells them why their opinions are wrong. This study focused on whether Colbert varies the length of his guest’s speaking time, the amount of interruptions he makes, the type of question he asks, his volume of speaking or his nonverbal communication for conservative as opposed to liberal guests. An additional research question was whether Colbert is an implicit critique of Bill O’Reilly. Fifteen interviews were analyzed. Results found that conservative guests were allowed 5% more speaking time, but there were no differences between the type of question asked, Colbert’s volume or nonverbal communication based on the political beliefs of his guests. It was also found that Colbert is an implicit critique of Bill O’Reilly.



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(J.2) “Male and Female Television News Interviewing Styles”

Crista Spehar and Eileen Krock, Undergraduates

This study examined male and female television news interviewer’s style with same-sex and opposite-sex interviewees. The focus was on three main areas: interruptions, probes, and leading questions. Results showed that male interviewers significantly interrupt more than female interviewers and interrupt male interviewees more than female interviewees. Male interviewers probed more than male interviewers for both female and male interviewees. One factor in probing was the type of story covered as male interviewer’s covered more hard-hitting stories than female interviewers. This difference in story may have limited the need for probing. Male interviewer’s also asked more leading questions than female interviewers.

(J.3) “Interviewing in Serious and Non-Serious Television programs”

Robert Duns, Undergraduate

This study analyzed differences in interviewing styles in amount of probing, use of open or closed questions, and interview question sequence used in serious and non-serious television interviews. Interviews from Good Day LA, a morning newscast from Los Angeles and The Tonight Show with Jay Leno show were used for the non-serious interviews. Larry King Live and The O’Reilly Factor were observed as for serious interviews. Findings were that non-serious interviewers are more likely to use probing open questions and that serious interviewers are more likely to ask primary closed questions. The tunnel question sequence was preferred in both serious and non-serious interviews.

(K) PANEL: "Issues in Mass Media Ethics"

(K.1) "Defining Intellectual Property as It Relates to Technology & Global Ethics Policies"

Leisa Campbell, Graduate Student

The purpose of this paper is to define intellectual property as it relates to technology and how it affects global ethics. In particular, intellectual property is examined through the philosophical theories of John Locke’s classical theory of property and utilitarianism. The struggle between intellectual property and information technology is confounded by the existing laws of intellectual property, namely copyright laws. The policy vacuum created by new technology has revolutionized the meaning of intellectual property because of individuals lack of consideration for the consequences of its usage; more so, the lawful/unlawful and ethical/unethical implications. It has become increasingly difficult to ascertain a clear definition of intellectual property and when it is legal or ethical to partake of the property.

(K.2) "Game of Shadows: The Ethics of Anonymous Sources in Sports Reporting"

Zachary Egnot, Undergraduate

This essay examined the ethics behind anonymous sources and the decisions made by reporters to refuse to identify their sources especially the case of Mark Fainaru-Wada and Lance Williams. Previous court decisions and laws regarding anonymous sources, commentary on the indictment of Fainaru-Wada and Williams made by journalists and applications of popular media ethics theories were used as part of the examination. In conclusion, this essay found Mark Fainaru-Wada and Lance Williams acted in an ethical manner when refusing to identify their anonymous source.



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(K.3) "Advertising in an Era of Product Integration: Clever or Unethical?"

Michelle Dunphy, Undergraduate

This paper explores one of the newest and fastest growing trends in advertising of product integration. Product integration is a general term that refers to any product or service incorporated into the media masquerading as news or part of a story. The hidden agenda of these advertisements is often further disguised as sponsors conveniently leave out their connection to the product/service being promoted. Product integration commonly manifests in the form of a video news release (VNR) or as product placement in television shows and motion pictures. This paper addresses the ethical dilemma created by this new fad in advertising and ultimately concludes whether this trend is justifiably clever or unethical.

(K.4) "Media of the Streets: Legitimizing Graffiti as Art & Culture in the Face of Criminal Stereotypes"

Jared Petsy, Undergraduate

This paper analyzes the street art known as graffiti. It provides a brief overview of graffiti in a historical context and as a contemporary art movement, outlines legal battles against graffiti, and explains criminal stereotypes often associated with the art. The paper addresses these stereotypes as products of false depictions in the media, and makes distinctions between graffiti as art and graffiti as vandalism. Finally, it views graffiti as a new form of street media through associations with advertisement, providing a voice to the voiceless, and challenging corporate control of public space.

(L.1) "Rationalizing Away Guilt: The Role of Cognitive Dissonance in Academically Dishonest Behaviors"

Sarah Widman, Undergraduate; Advisor: Dr. Yost, Psychology

Leon Festinger's (1957) cognitive dissonance theory states that when an individual experiences a discrepancy between one or more of the individual's attitudes and the individual's behavior, a negative emotional state may occur. To alleviate this discrepancy an individual may attempt to rationalize away guilt. The cognitive dissonance theory (Festinger, 1957) provides a framework to explain the relationship between a student's perceived frequency of other students engaging in academically dishonest behaviors and feelings of guilt. It is hypothesized that if participants reflect on their feelings from their most academically dishonest behavior they will rate the frequency of fellow students' academically dishonest behavior higher and therefore have less guilt than the participants that reflected on their favorite television show or movie. This study found that if participants reflected on their most academically dishonest behavior (vs. control), participants perceived higher frequency in academically dishonest behaviors of fellow students and for males only, guilt was alleviated.

(L.2) "Independence, Statehood and the problem of Puerto Rican colonization"

Mei-Ling Rivera-Cerezo, Undergraduate

Puerto Rico has been struggling with its status since 1898 when it became a part of the United States of America. The issue of Puerto Rico's status is a very controversial issue for the island. This research will first examine Puerto Rican history. Second this research will explain that the term Commonwealth is actually a colonial status by using Ruben Berrios and his proposal to the United Nations. Third, using Berrios' argument I will put forward the argument for Puerto Rican statehood. The paper will offer the interpretation that Puerto Rico should be counter-intuitively using Berrios' pro-independence argument about Puerto Rico's colonial status to suggest, instead, statehood. Funded by the STARS Scholars Program.



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(L.3) “A Descriptive Analysis of College Student Perceptions of Inmate Access to Privileges”

Jacqueline Hicks, Undergraduate

The focus of this paper is to examine college student perceptions of inmate access to privileges. A review of the literature suggests that inmate access to religious affiliation, family support networks, and mail and visitation privileges are critical determinants in how successfully inmate adapt to a stay of incarceration. The findings indicate a weak but positive relationship between gender, age, race, and favorable college student perceptions of inmate access to privileges. My hypothesis is that students' perceptions of coping strategies will differ by factors such as gender, family income, and race. The method used for the study will be an interview technique using a survey instrument/questionnaire. The population will consist of Sociology students from Introduction to Sociology, Juvenile Delinquency, and Social Stratification at John Carroll University. I will use a purposive sampling of students from Dr. Dezolt's Sociology classes. The sample size will be about 75 students. Funded by the STARS Scholars Program.

(L.4) “Mushroom Clouded Memories: The Atomic in Film”

Katharine Anne (Kitty) Gabele, Graduate Student; Advisors: Dr. Ryan, Humanities; Dr. Roger Purdy, History

This comparative study will illuminate issues of memory, trauma and human expression as explored in the films of directors Alain Resnais and Akira Kurosawa. The films in question, *Hiroshima Mon Amour* (1955, France) and *Rhapsody in August* (1991, Japan), cast their plots around the atomic attacks of 1945, but do not actually recreate these attacks. Instead, the films highlight the human experience of memory and the problematics of commemoration. Conclusions to be explored include the artist's ability to make sense (or nonsense) of a severely traumatic experience, and the value of art to the study of an increasingly global history and culture. Master's Thesis in Humanities.

(M) “History, Memory, and Identity in Northern Ireland: Experiences from the Belfast Summer Institute”

Chaired by: Dr. Mindy Peden (Political Science) and Dr. Wendy Wiedenhoft (Sociology)
Presenters: Krista Corabi (Biology), Matt Harmon (Political Science), Linda Kawentel (Political Science), Miriam McGinn Moorer (Sociology at Loyola University), James Murphy (Sociology), Marissa Patsey (Political Science), David Schul (Political Science), Katie Sedon (English)

The Belfast Summer Institute on Peace-building and Conflict Transformation is designed to foster the understanding, knowledge, and skills that enable students to participate in peace-building, social justice, and conflict transformation efforts at home and around the world. This panel, composed of students who have participated in the program since its inception in the summer of 2004, will explain the various dimensions of the conflict in Northern Ireland from the perspectives of both Loyalists/Unionists/Protestants and Republicans/Nationalists/Catholics. We will examine, in particular, the roles history, memory, and identity play in reproducing conflict and difference through murals and commemorations, including the 1981 Hunger Strike, the July 11th bonfire, the July 12th Orange Parades (or Marches), and Bloody Sunday. We will explore potential strategies that attempt to transform conflict over history, memory, and identity at the community-level and professional political-level. We will also talk about the value of experiential learning and the strategies used for learning in this course (including blogging, response papers, formal and informal talks, and web research).



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(N) "East Asian Art History"

(N.1) "Ma Yuan and his Bamboo and Ducks by a Rushing Stream"

Meredith Lea, Undergraduate; Advisor: Dr. Chou, Art History

This paper discusses Ma Yuan, one of the most important court painters of the Song Dynasty (960-1278 AD), and his painting, *Bamboo and Ducks by a Rushing Stream*, which is in the collection of the Cleveland Museum of Art. Through comparisons with some of Ma Yuan's recognized and dated paintings, I show how this Cleveland Museum of Art piece interestingly differs from Ma Yuan's other painting styles.

(N.2) "The Art of Gesture: Retelling of Kabuki Theatre Utilizing Woodblock Prints"

Matthew Chmielewski, Undergraduate; Advisor: Dr. Chou, Art History

This paper examines the foundation and development of Kabuki theatre throughout history, and will show the many facets of society it reflected. Because of the many benefits and drawbacks of modern technology in terms of theatre construction—comfortable chairs, electricity, and heating—the true mood is not achieved in modern Kabuki theatre. Our only way to capture the essence of Kabuki theatre is by examining woodblock prints offered to us from the Edo Period. The prints not only allow us to interpret the psychology or emotion the actor performs, but also translates the performance into a tangible object.

(N.3) "Hakuin Ekaku and Zenga"

Wes Johansen, Undergraduate; Advisor: Dr. Chou, Art History

This paper discusses the development of Hakuin's (1685-1769) painting in the Zenga tradition (Art of the Zen Buddhism). Hakuin is considered one of the leading Zen monk painters in Japanese art and is noted for his prolific output. In this paper, I would like to discuss his biography and introduce several paintings of Daruma (the patriarch of Zen Buddhism), which is one of his favorite subjects in painting. From these examples, we will understand how Hakuin transformed and developed his subjects throughout his life.

(N.4) "The Noh Mask: An Investigation into the Art of Ancient Japanese Theatre"

Natalie Wilson, Undergraduate; Advisor: Dr. Chou, Art History

Noh drama is an ancient form of Japanese theatre that predates the written word in Japanese culture. Elaborate masks used in these dramas tell us much of what we know about the tradition. Noh masks give us specific clues about the family lines and performance rites which are dictated by the possession of these pieces of stage craft. Additionally, the works of Zeami, foremost poet, scholar and philosopher of Noh style, are examined to give us a better idea of the significance of the masks within the art. Through his treatises, the art and purpose of the masks are described in relation to the artistic aim of the Noh style. Finally, an in depth look at the characters portrayed by these masks as well as the masks' importance in the overall aesthetic and theoretical aim of Noh gives an understanding of the importance of the mask within Noh.

(O) "Poetry as Discovery: A Reading and Discussion of Poetry Writing by Students"

Christopher Kempf, Robert Kumazec, Rhiannon Lathy, Undergraduates;
Advisor: Dr. Metres, English

This presentation will articulate through poetry how American culture and politics both shapes and is shaped by one's daily existence. Christopher Kempf's "Patriot Acts" gives voice to the Millennial Generation's struggle to forge individual subjectivity in a technologized culture,



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at war abroad and at home. Robert Kumazec's "The Apple Press" narrates his relationship to Slovenian ethnicity, primarily through the figure of his grandfather "Ata." Finally, Rhiannon Lathy's "The Picture She Hides" interweaves her mother's struggle with cancer with stories of the Iraq War, exploring the relationship between private suffering and mass violence. These projects, then, probe the possibilities of poetry to engage the world, exploring how our voices interact with, transform, and are transformed by an increasingly globalized and polyvocal culture. Each poet will read a selection of poetry, then participate in a roundtable discussion with Dr. Philip Metres (and the audience) about the process and implications of their work.

(P) "Contemporary Social Issues"

(P.1) "Teen Pregnancy and Poverty"

Elizabeth Mahoney & Erin Odachowski, Undergraduates; Advisor: Dr. Harris, Sociology
Teen pregnancy is a major problem in the United States. Though statistics have shown a recent decline in the rate of teenage pregnancy, it is still an important social issue to consider; as all aspects of an individual's life are affected by parenthood. The goal of this research was to examine the relationship between teenage pregnancy and the social disadvantages associated with poverty. To better understand this connection, various pieces of literature were reviewed and an investigation of current programs that assess the issues of teenage pregnancy was conducted. Previous research has indicated that teenage pregnancy results in major life changes that affect an individual's economic, educational, and familial well being. A change in any of these institutions can impact an individual's likelihood of living in poverty. The conclusion of the current study has shown that a strong relationship between poverty and teen pregnancy exists and that neither one can be solved without addressing the other.

(P.2) "Domestic Violence: Causes, Consequences, Connections to Poverty, and What is being Done"

Jenny Denton and Laura Siciliano, Undergraduates; Advisor: Dr. Harris, Sociology
Domestic violence is a widespread social problem which impacts the lives of people across all ages, races, ethnicities, religions, sexual orientations, occupations, and classes (WomensLaw.org). While this issue can affect members of all sexes, in 95% of domestic violence cases, a woman is the victim (Frias, Sonia M., and Ronald J. Angel, 2005). Additionally, there is a significant connection between poverty and domestic violence. Problems which arise from being poor prohibit an abused woman from being able to escape the cycle of violence. For example, 80% of women who come to the Domestic Violence Center in Cleveland earn less than \$15,000 a year. This presentation will review this data and provide insights gained from an interview with an expert in the field. In hopes of preventing future incidents of domestic violence, this research demonstrates that society needs to address the connection between poverty and domestic violence.

(P.3) "The Black-White Academic Achievement Gap"

Rachel Mihna, Undergraduate; Advisor: Dr. Harris, Sociology
There have been many researchers who have examined the black white achievement gap over the past few decades and they have found contradictory ideas about the causes. There are those that believe it is the funding or lack thereof, and the actual structure of the school. Then there are those who believe these things do not make a difference. John Ogbu, a very prominent researcher in the study of education believes one's peers are the cause, and other research shows peers have little influence on the individual. However, when examining all of the



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research there are certain things that are persistent across all research. Family contributes immensely to this achievement gap, both structure of the family, and educational attainment. This paper will review these findings and recommend that more in-depth funded research needs to be done on this matter in order to narrow or even eliminate the gap.

(P.4) "Social Security Privatization: A Cross-National Study"

Scott Adams, Undergraduate; Advisor: Dr. Harris, Sociology

Social Security privatization has been suggested among some political leaders in the U.S. as a solution to the predicted problems that Social Security will face as the population of older adults grows in the United States. Under a privatized plan, a portion of the money that an individual pays into the Social Security System would be invested in the stock market in the hopes of eventually generating more income for retirees. However, Social Security privatization places money that many individuals will depend on at great risk. Not only would the chance for losing money in poor investments increase, but funds intended to keep the Social Security system solvent would have to be diverted to pay for more administrative costs as well. The experiences of Chile and Great Britain, two nations that privatized their national pension systems, will be discussed in this paper and then recommendations for U.S. Social Security reform will be suggested.

(Q) "Girls Gone Subordinate: Reinforcement of Negative Stereotypes of Women"

Abbey Fox, Katherine Sedon, Erin Jackson, Julie Mrozek, Monica Kwiatkowski,
Undergraduates

Women are typically represented in society as objects, which perpetuates violence against women because they are not seen as people. It is easy to abuse an object rather than a person. Magazines reinforce these perceptions of women, and these images reflect the sentiments of society (even if these images are not typically and generally perceived as detrimental to women). Furthermore, society reinforces these negative stereotypes and promotes a spatial constrain on women's bodies such that women are expected to take up less space and to inhibit their movement. As women age, these negative stereotypes dictate the value of women based on youthful appearances, which stigmatizes and devalues older women.

(R) Grauel & Summer Research

Dr. Gerald Guest, Art History & Humanities; Dr. Larry Schwab, Political Science; Dr. Dan Palmer, Mathematics & Computer Science

(S) "Political Issues of the 21st Century: Governance, Nationalism, and Regional Hegemony"

(S.1) "Using Political Pressure to Seek Economic Dominance in a Post-Cold War Latin America"

Joshua Marcin, Undergraduate

Before the fall of the Berlin Wall, U.S. governments successfully used Cold War fears and the rhetoric of a "war against Communism" to justify covert and often not-so-covert interventions into Latin American politics. However, the breakup of the USSR has since eliminated a powerful rationale for such blatantly anti-democratic and interventionist policies by American governments. As such, for the U.S. to continue to have political influence and translate governmental control into favorable trade agreements, newer and less militaristic mechanisms are needed to purport a legitimate claim to political and economic influence in the region.



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The United States government therefore faces a crisis for Western political and economic hegemony as it searches for post-Cold War mechanisms to maintain and legitimize socioeconomic intervention in a region that is divided between acceptance of U.S. political control for economic reasons and resistance towards perceived neoimperialism.

(S.2) “Neoliberalism and Identity: Nationalist and Indigenous Movements in Bolivia and Ecuador”

Douglas Walton, Undergraduate

Social movements in Latin America are often viewed strictly as responses to the failures of economic neoliberalism; however, upon further study, social movements can be seen as assertions of national or indigenous identity in the face of lost sovereignty over resources and national affairs. Neoliberalism has indeed led to an increase in inequality and poverty; but also, many nations have lost sovereignty over their own resources and affairs during the last two decades. Protests over the loss of communal water rights in Bolivia and Structural Adjustment Programs in Ecuador are just two examples of the expression of nationalist and indigenous identity. The cases of Bolivia and Ecuador show that social movements are nationalist and indigenous efforts to assert identity and regain sovereignty. These movements may well be triggered by poverty, inequality, and other economic hardships of economic integration, but their ultimate goal is to establish identity and secure national sovereignty.

(S.3) “From Bombs to Ballots - The Hamas Movement in Governance: January – November 2006”

Ilya Batikov, Undergraduate Student; Advisor: Dr. Hahn, Political Science

Since being elected to the Palestinian Legislative Council in January of 2006, Hamas has been pressured to meet the demands of the United States, Israel, and European Union to abandon violence, recognize Israel, and accept a two-state solution as a final end to the Israeli-Palestinian conflict. The 2006 election was the first time the Islamist Hamas had chosen to participate in electoral politics, and the group’s entrance into governance resulted in daunting new challenges. For the first time since its establishment, Hamas was obligated to undertake the role of representing the whole of the Palestinian people. Though its founding principles were built upon the opposition to a two-state solution, the international pressures to renounce anti-Israel violence and enter into peace talks with the Jewish state placed upon the Hamas-led government the choice of either renouncing their fundamentalist ideology or being sanctioned into paralysis.

(T.1) “The Effect of the HIV/AIDS Pandemic”

Alison Cyperski, Angela Hughes, Undergraduates; Advisor: Dr. Harris, Sociology

In 2005, the global HIV/AIDS pandemic reached a new height of 40.3 million people living with AIDS in the world, with two-thirds of that population residing in Sub-Saharan Africa. People with HIV/AIDS suffer not only from the physical and mental hardships of living with an incurable disease, but they also suffer from the stigma attached to HIV/AIDS, causing disparity. These people are marginalized in society, especially since it was originally considered a “gay-related” disease. Even though it is incurable, there are treatments available, though at an extremely high price. This perpetuates poverty, especially in less developed countries, such as those in Sub-Saharan Africa. To help alleviate poverty, there have been several local, national, and international programs and organizations implemented, such as the 3 by 5 Initiative. This paper aims to examine the effects of living with HIV/AIDS, concentrating on how HIV/AIDS affects and leads to poverty.



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(T.2) “The Relationship between Poverty and Substance Abuse”

Mary Ellen Madden, Rachel Scales, Undergraduates; Advisor: Dr. Harris, Sociology

This research study was conducted to: 1) gain a deeper understanding of the trends and causes of substance abuse within impoverished populations, 2) determine whether substance abuse has an affect on one’s ability to escape poverty, and 3) examine whether the culture of poverty sanctions substance abuse. Many of the trends reveal that individuals who are at high risk for living in poverty are also at high risk for abusing substances. The reasons of this correlation are often attributed to high stress, poor neighborhood conditions, low employment and income levels, discrimination, and issues of adolescent development. The data also suggests that comprehensive intervention programs must be implemented within impoverished neighborhoods and schools in order to raise awareness about one’s risk for substance abuse and to provide individuals with the ample resources for prevention and rehabilitation.

(T.3) “The Psychology of Poverty”

Scott Adams, Elizabeth Frimel, Undergraduates; Advisor: Dr. Harris, Sociology

Poverty is a social problem that produces psychological consequences. This study examines the psychosocial factors associated with poverty, such as financial uncertainty, powerlessness, and lack of dignity that can have a detrimental impact on the mental health of the individual who lives in poverty. Environmental conditions of poverty, from overcrowding to negative working conditions, can also add to higher levels of stress, low self esteem, and depression among individuals who live in poverty compared to those who live in more affluent conditions. Consider also an individual’s lack of social capital and parents who may be disengaged from the emotional and developmental needs of their children because of the burdens of poverty. Consequently, parental education, greater social capital, and access to psychological treatment, along with larger systemic changes, may be the best hope for alleviating poverty’s impact on mental health. These issues and possible solutions will be addressed in the presentation.

(T.4) “Poverty & Recidivism among Ex-Offenders”

LeTanya V. Cintron, Alena Hernandez, Undergraduates; Advisor: Dr. Harris, Sociology

Recently, a great deal of research has been conducted about prisoner re-entry, many of which recognize some factors related to re-entry, but provide few solutions for positive re-entry. A major problem identified is that most released prisoners tend to return to criminal activity within a year of initial release or culmination of parole. However, the biggest issue remains in the inability for ex-offenders to provide for themselves; this is caused by numerous societal and systemic reasons. In addition, with a criminal record, many of these individuals find themselves excluded from many aspects of society, and individuals in socio-economically disadvantaged areas experience harsher burdens and are less likely to succeed without support from the community, family and friends. The purpose then, is to better identify the needs of the offenders in order to best approach a solution to their problems and help them become productive members of society.

(U) “Border Encounters: JCU Students in Tijuana”

Jillian Kaltenbach, Jessica Serbin, Douglas Walton; Photos: Jonathan Tramontana

(Honors Program students). Advisor: Dr. Kolesar, Director, Honors Program

For several years groups of JCU students, faculty, and staff have traveled to Tijuana, Mexico, to participate in service projects with Los Niños International, a binational community development organization. In this presentation, three students who went in May, 2006, will share the



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understandings they gained of community development and service work; the problems and potentials of Tijuana, a rapidly growing and developing city; and the contemporary dynamics of migration and border control issues. The presentation will be illustrated with the photographs taken by a fourth student, as well as other materials.

(V.1) “Literature Review of the Factors Affecting Student Success within the Economics Major”

Gretelyn Button, Undergraduate; Advisor: Dr. Calkins, Economics & Finance

The factors affecting student success within the economics major encompass myriad variables. Some are demographic such as age, gender, and ethnicity while others are related to previous field or scholarly experience; for example the number of math or economics courses taken, a student’s GPA, or a student’s SAT scores. Previous economics research has been conducted to determine the impact of the factors on student success within the economics major, and this previous research can provide insight and direction for future research into the factors affecting student performance. This paper presentation will illuminate and explore the findings of the past research into the factors affecting student performance, suggest possible conclusions based on previous data, and also propose ideas for future research in the field.

(V.2) “Charter Schools: A Better Alternative?”

Sahar Shouman, Undergraduate; Advisor: Dr. Ford, Education & Allied Studies

In the past five years, there has been an increase in alternative schools, particularly charter schools. These schools get the same funding as public schools but they run differently. Each school has its own philosophy on educating students and decides how to run their individual school. There is more freedom in how schools use funding, roles of teachers and educators, and choosing students. I will be researching charter schools in Ohio to examine their effectiveness. The data to compare effectiveness collected is based on attendance, retention rates, and standardized testing results (proficiency test results or OGT depending on age group). Lastly, I would like to examine and discuss the methods used by the charter school to understand what they consider an effective system in order to draw a conclusion as to whether charter schools in Cleveland have met their goals and can be considered a better alternative.

(V.3) “The African American Concept of Death” : Associated with African Heritage and Christianity

Diamond S. Summers, Undergraduate

In looking at many recent culture studies that surround the concept of death, the African American concept of death is quite unique. It remains to be unique in several ways regarding its nature, which stems from a combination of African spirituality along with Christian beliefs. Death in the African American culture is seen as a very important aspect, tracing back to African roots and superstitions. The procedures, traditions, customs and mourning celebrations which surround African American deaths and funerals are unlike any other culture. The structure of African American funerals or death customs may seem similar to other cultures, but the African American view of death itself can be differentiated from other cultures. Instead of death being viewed as the end of life, African American culture view death as a “pass over” or “home going,” celebrating the transition of a human being leaving the earthly world and transcending into the spiritual world.



PAPER & PANEL ABSTRACTS

(V.4) "Virginia Woolf and Mother Nature: the Aging Female Archetype in Society and Psyche"

Katherine Sedon, Undergraduate; Advisor: Dr. Collieran, English

Virginia Woolf appeals to an archetype of Mother Nature in her fiction but employs the archetype in order to describe the aging female, rather than historical uses applied to the young female. This paper aims to show how her method reflects on the social constructions of aging as well as the psychological effects of aging. A psychoanalytic discussion is appropriate to Woolf's fiction because of the influence of Carl Jung in Modernist literature. In addition, the aim of this paper is to contribute an analysis of Woolf's commentary on aging that goes beyond the scope of most standard feminist readings which have yet to fully explore this topic. The aging female is hampered not by physical change or deterioration but by social norms affixed to age and women; this forces the aging female to continue life until the very end, a social responsibility unwillingly carried by Woolf.

(W) PANEL: "Green Chemistry"

(W.1) "Pros and Cons of the use of Coal"

Brad Hauser, Undergraduate; Advisor: Dr. Kwan, Chemistry

Coal is one of the most prevalent and important sources of electricity in the United States. However the burning and use of Coal has many detrimental effects on the environment, with one of the leading concerns being global warming. I plan to address the pros and cons of the use of coal and its role or lack thereof in this Country's and the World's future.

(W.2) "Biofuels"

Paul Schroder, Undergraduate; Advisor: Dr. Kwan, Chemistry

The recent increases in petroleum prices, the rapid depletion of fossil fuel sources and the rise in green house gas emissions from fossil fuels have sparked interest in alternative energy sources. Biofuels are any liquid fuel made from biomass (i.e. plant and animal oils and wastes) that can be used for supplying energy. The production and use of fuels such as bioethanol and biodiesel are currently being implemented to reduce greenhouse gas emissions and alleviate the stress placed on fossil fuel reserves. The question now is whether or not these biofuels are energy efficient and cost effective replacements for current fossil fuels.

(W.3) "JCU's BL 331 Course: Global Climate Change"

Dr. Miles Coburn, Biology

The Anthropocene, or period of human-induced climate change which we have entered, is not comparable to any other in Earth's recent geologic history. BL 331, Global Climate Change, is designed to give biology students and non-majors a framework for understanding current climate change. The lecture topics include an overview of Earth's climate today; introduction to climate models, climate archives and proxy tests used in climate reconstructions; Earth's past climate as viewed from tectonic, orbital, millennial, and historical time scales; how humans are affecting climate today; and the biological, ecological, and health effects of climate change. The course ends with a discussion of what can we do to address climate change individually and as a society. The readings are general in nature and focus on current climate change issues, the ongoing debate among climate scientists about the severity and rapidity of climate change, the effects of climate change on tropical, temperate and polar ecosystems and human societies, and potential solutions to reduce or mitigate the effects of climate change.



PAPER & PANEL ABSTRACTS

(W.4) "Green Chemistry: Money and the Environment"

Matt McDiarmid, Undergraduate; Advisor: Dr. Kwan, Chemistry

Green chemistry not only has positive environmental effects but it can also have large effects on the economy and industrial monetary spending. There is a slight misconception that green chemistry is not cost effective. Many corporations are reluctant and slow to switch to green chemistry due to the initial change and possible increase in cost over current conventional methods. However, in the long run, just like the environment, green chemistry is smarter, most times more efficient, and cheaper. With green chemistry there is no worry for potential future environmental clean ups or fines that can reach in the upwards of hundreds of millions of dollars. Pacific Gas and Electric alone are currently paying a \$333 million class-action suit for the release of toxic chemicals in a local community. As one can see not only is green chemistry a good choice the environment and our community, but it is also a great long term choice for our pocket books, which we all know is the true green issue that runs the world.

(W.5) "Renewable Energy Sources for the Near Future"

Philip Zuzolo, Undergraduate; Advisor, Dr. Kwan, Chemistry

With the decreasing supply of non-renewable resources and the harm that they are causing to the environment, a greater push is being made towards the use of renewable and non-polluting sources of energy in today's society, both at an individual and a commercial level.

(W.6) "Green Building"

Katherine Conry, Undergraduate; Advisor, Dr. Kwan, Chemistry

In the United States, buildings account for a substantial amount of energy and water usage, waste production, and use of raw materials. Buildings also produce a significant amount of greenhouse gases and have poor air quality. Building and renovating green could substantially reduce the need for energy, water, and raw materials as well as decrease waste production and the production of greenhouse gases. Green building involves using nontoxic, recyclable, and renewable materials as well as energy efficient designs. Building green can aid in preserving natural habitats, conserving natural resources, and protecting air and water quality.

(X) "Senior Honors Projects in the Humanities & Social Sciences"

(X.1) "Testimonial Literature: Its Importance, Relevance, and Efficacy in Latin America"

Kristy Calaway, Undergraduate; Advisor: Dr. Anderson, Classical and Modern Languages and Cultures

In 1992, on the symbolic five-hundred year anniversary of Europeans landing in the Americas, Guatemalan Rigoberta Menchú won the Nobel Peace Prize, nine years following the publication of her book, *I, Rigoberta Menchú*. A Mayan peasant, Menchú's success in drawing attention to the oppressive situation under which she lived eventually found much criticism. In 1999, a book by David Stoll challenged the validity and importance of Menchú's account, bringing great controversy to the study of testimonio. A form of literature in which the subject narrates his/her own story which is representative of a larger, collective group, the testimonio can make the highly populated yet often unrepresented developing world much more accessible to those living in developed countries. This project will analyze the existing arguments over the importance and relevance of Latin American testimonios and their placement among academic disciplines. I will explore testimonios written in Chile during the oppressive Pinochet regime.



PAPER & PANEL ABSTRACTS

(X.2) “The Picture She Hides: A Collection of Poems”

Rhiannon Lathy, Undergraduate; Advisor: Dr. Metres, English

It has been my attempt these last few months to follow in the confessional poetry tradition of blending one’s personal life with political and historical events, the result of which is the following collection. My senior honors project—The Picture She Hides: A Collection of Poems—interweaves the Personal and the Political, drawing parallels between my mother’s continued struggle with throat cancer and the consequences of the Iraq War. In the series, the reader will note a focus on concrete images from my home life and news coverage and photos of the war. The intent is to explore the relationship between personal suffering and mass suffering as a result of war and to emphasize poetry’s role as both aesthetical and ethical. In this collection, the reader will be asked to make the suffering of others personal.

(X.3) “Inherited Genetic Modifications and Their Impact on Future Generations”

Joseph Rich, Undergraduate; Advisor: Dr. Spurgin, Philosophy

Rapid developments in genetics have occurred in the past few years, allowing for many new possibilities in treating disease and deformity. One of these new possibilities is inherited genetic modifications (IGM). These modifications are able to change genes that are then passed down to future generations. This results in a global effect – both on all one’s cells including reproductive cells. Inherited genetic modifications promise to be a powerful tool in preventing serious diseases from occurring, and helping those who already have a deadly disease. It is important for research to be done carefully in this area. For, at this stage there are many possible benefits from making use of inherited genetic modifications, but there is an even longer list of possible dangers of IGM. This paper explores important philosophical and ethical issues surrounding IGM which need to be addressed before IGM are used on a wide scale with humans.

(X.4) “The Effect of Mortality Salience and Authoritarianism on Judgments of Arab vs. European American?”

Margaret Virostek, Undergraduate; Advisor: Dr. Yost

Terror Management Theory (TMT) attempts to explain how humans deal with the knowledge of their own mortality and theorizes that humans develop a worldview that protects them against the terror that results from such thoughts. Making mortality salient is an integral part of most studies involving TMT as that is what leads a person to defend their worldview more vehemently than under normal circumstances. The worldview defense is generally exhibited as prejudice against the out-group, especially among those who are high authoritarians. One example of such prejudice would be acts of violence against people of Middle Eastern descent immediately following September 11, 2001. All participants were given the Right Wing Authoritarianism Scale, a prime, and a scenario followed by a series of questions to measure prejudice. It was predicted that those who are high in authoritarianism would be the most prejudiced against the man in the scenario, regardless of the prime given.





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“A” posters will present from 7:00 to 7:45 PM on Thursday, March 22, 2007. “B” posters present from 7:45 to 8:30 PM. See also the second floor of Dolan East for the special poster display: “Spotlight on Psychology.”

*Main presenters

(PS.1.a) “The Information Service Sector—Solution to Global Social Justice Or Stimulus for Global Terrorism?”

*Elaine F. Hocevar, M.A., Dr. Ernest DeZolt, Sociology

This research examines the role and function of the Information Service Sector outlined in Benjamin Barber’s (1995) *Jihad vs. McWorld: Terrorism’s Challenge to Democracy*. In his book, Barber claims that the Information Service Sector holds promise in responding to global acts of terrorism with a commitment to democracy and social justice. If this assumption is correct, subsequent acts of terrorism will be eradicated while solidifying the democratization of the world. This paper asserts that if the Information Service Sector is to promote democracy and social justice as an representation of its globalist activities (i.e. providing information, communication, and entertainment), it must utilize the process of undistorted communication outlined by Jurgen Habermas (1984) in his *Theory of Communicative Action*.

(PS.2.a) “The French in the Americas”

Dr. Martha Pereszlenyi-Pinter, CMLC

French America or l’Amérique française includes the general community of francophones and francophiles, as well as peoples who trace their origins to early French colonization of the Americas. The French first came to the “New World” in the 16th century, as explorers seeking passage to the Indies. They eventually established a colonial empire called “New France.” Major French colonies were located in Canada and the Mississippi River Valley, along the Gulf coast in today’s Alabama, Mississippi and Louisiana, on the Caribbean islands of Hispaniola (today Haiti and the Dominican Republic), Guadeloupe, Martinique, and Ste. Lucie; and French Guiana in South America. As they colonized the Americas, the French founded cities in Canada such as Québec and Montréal, in the USA Detroit, Michigan; St. Louis, Missouri; Mobile, Alabama; Biloxi, Mississippi; Baton Rouge, Louisiana; and New Orleans, Louisiana. Each poster in this exhibit explores one aspect of the legacy of the French colonial empire. Ashley Cerny: A Friendship of Freedom: George Washington and the Marquis de Lafayette; Nicole Herrera: Haïti; Ashley Pendice: French Influence in Ohio; Juliana Reifsnnyder: Voodoo in Haïti Julie Slavish: French Gardens; Stacy Stark: Wedding Traditions: ‘Tying the Knot,’ Cajun Style

(PS.3.a) “Twentieth Century French Fashion Designers”

Clothes identify our cultures, our social interactions, and our very identities. With the development of technologies and the ready-made garment industry of the nineteenth century, France became notorious for its men’s and women’s Fashion designers. With this poster presentation students will demonstrate their long lasting influence. Posters Prepared by Students from the French course FR 499: Food and Fashion Through French Literature and Art.

Rima Baltutis : Hubert de Givenchy; Sara Capraruolo : Eing Gowns and Oscar de la Renta; Lauren Danek : Yves Saint-Laurent; Francine Davis : Les Sœurs Callot; Kristina Drnjevič : Coco Chanel
Marta Fabrykowski: Loulou de la Falaise; Natalia Iacobelli: Hubert de Givenchy
Christina Kyrkos : René Lacoste; Kate Lawson: Charles Kleibaker and Madame Vionnet
Camilla Park : Hermès; Dr. Hélène Sanko: Classic Watteau Pleats 1745-2007



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(PS.4.b) “French and Francophone Women Writers: One Language, Many Voices”

Dr. Hélène N. Sanko, CMLC; Undergraduate Students, Aaron Noon, Christina Kyrkos, Colin Murphy, Caitlin Overdorf, Camilla Park, Elizabeth Irr, Erin Moran, Faith Anderson, Moria Torrington, Natalia Iacobelli, Rima Baltutis, Sara Capraruolo, Vicky Haddad, William Collins

In their poster presentation, students will share their research and knowledge of French and Francophone women writers through the centuries from the Middle Ages to the XXth century. They will illustrate individual women revealing the themes of their works, placing them in the historical and cultural milieu in which their work evolved.

(PS.5.a) “Rape Myth Acceptance and the Unobtrusive Presentation of Sexually Degrading Images”

*Alyssa A. Williams, Undergraduate; Advisor: Dr. John Yost, Psychology

Rape myth acceptance, a testable assessment of false justification for rape, has allowed in depth study of possible causes of rape and useful preventative measures. Recently, a correlation was found between males’ rape myth acceptance and the display of degrading images of women in their homes. The present study served to experimentally measure this effect. Seventy participants completed the Illinois Rape Myth Acceptance [IRMA] scale after being implicitly primed with either a friendly photograph of college friends or a photograph of college friends in which the women are being objectified. As hypothesized, results showed that males in the objectified photograph group scored significantly higher on the IRMA than females. Additionally, females in the objectified group scored significantly lower than females in the friendly group. Results imply a possible explanation for the prevalence of rape myth endorsement and a need for further exploration of women’s perceptions of common rape myths.

(PS.6.a) “Preschool Vocabulary Assessment for Early Learning Initiative for University Circle, Inc.”

*April Reed, Graduate Student; Dr. S. K. Dunlap, Education & Allied Studies

The focus of this study was to measure the effectiveness of specific vocabulary teaching aligned with visits to ten cultural institutions from University Circle. The challenge posed by formal assessments for preschoolers was met by utilizing photographs of the concepts represented by the cultural institution. Preschoolers were shown the photographs and were queried, “What is this?” The assessment was administered prior to instruction and visits to the institutions, again shortly after the latter and yet again 6-8 weeks later to measure retention. The data was analyzed separately for each institution. The conclusion of the study yielded information that supports the research literature. Students demonstrated accelerated growth over time but lost ground in the retention area because many of the words could not be revisited over numerous times and applications. Further professional development for the teachers is being conducted this spring and a follow up study will be conducted during the 2007-2008 school year.

(PS.7.b) “Terror Management Theory and Politics”

*John Simmons, Undergraduate; Advisor: Dr. Yost, Psychology

A key premise of terror management theory (TMT) suggests that when mortality is made salient to individuals, they will be comforted by, and thus affirm, similar worldviews and will be threatened by, and thus reject, dissimilar worldviews. According to TMT, mortality salient conservatives, who tend to have a narrower, dogmatic worldview, should be more accepting of conservative arguments and more opposed to liberal arguments; mortality salient liberals, who tend to have a more open-minded worldview, should be somewhat accepting of both conservative and liberal arguments. To test this hypothesis, 61 participants were asked their opinion



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of affirmative action practices, once before a salience prompt and once after; the change in scores was recorded and analyzed. Results indicated that making mortality salient to participants had no effect on a change in scores and furthermore that changes in score did not significantly differ among liberals or conservatives. These results refute TMT.

(PS.8.a) “Connecting Volunteer Experiences to Personal and Social Development”

*Anthony Tarescavage, Ben Beehner, Undergraduates; Advisor: Dr. Nicholas R. Santilli, Planning & Assessment

In this study, we focus on undergraduates’ community service experiences. Past research indicates that youth community service deepens civic engagement, heightens moral-political awareness, and stimulates identity development. We expand past research by examining how volunteerism interacts with other experiences aimed toward stimulating civic engagement. Over 900 participants from a larger study completed a survey cataloguing community service background, civic involvement, volunteer preferences, interpersonal relations, and personality characteristics. Participants’ narratives of meaningful service experiences and views of society were analyzed using Youniss and Yates’ (1997) model of transcendence. Results show significant relationships between transcendence and perceptions of social concerns, the value of service, and personal identity. These findings suggest service provides an avenue to connectedness to society and personal growth. Service opportunities are enhanced by the form of service experiences, leading to a deeper understanding of society, self, and service to the greater good.

(PS.9.a) “The Effect of Political Ideology and Abuse Type on Sentencing of Battered Women”

*Dana DeNoi, Undergraduate; Advisor: Dr. Yost, Psychology

Ideological values are prevalent in the United States and have a major influence on decisions individuals make daily (Christopher & Mull, 2006). Often studies have found that individuals who consider themselves as conservative are more likely to have strong views on social issues, such as women’s rights, and homosexuality. It is hypothesized that individuals who have more conservative ideological values will give a harsher punishment to women than individuals who do not have conservative values. Also condition will be investigated to see if women are punished more often when they kill their husband after being emotionally abused or after being physically abused. Seventy-four undergraduate psychology students from John Carroll University volunteered for the current study.

(PS.10.a) “Familiar and Unfamiliar Melodies as Mnemonic Devices”

*Dr. David Rainey and Dr. Janet Larsen, Psychology

Rainey and Larsen (2002) reported that participants hearing lists of names sung to familiar melodies were able to relearn the lists a week later in significantly fewer trials than participants who heard spoken lists or saw printed lists. It was unclear how important the familiarity of the melodies was in generating this mnemonic effect. In the current study, authors hypothesized that participants would relearn a list in fewer trials to both familiar and unfamiliar melodies than to a spoken presentation and that a familiar melody would provide a greater benefit than an unfamiliar melody. Pairwise comparisons following an ANOVA revealed that participants required significantly fewer trials to relearn the list in the familiar melody condition than the spoken condition ($p < .05$), but there was no difference in relearning between the unfamiliar melody and spoken conditions or between familiar and unfamiliar melody conditions.



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(PS.11.a) “The Phonological Similarity Effect in Auditory STM: Perception or Memory?”

*Dr. Janet D. Larsen, Psychology; Alan D. Baddeley, University of York, UK

Baddeley’s theory of working memory assumes that auditory information automatically enters the phonological loop of working memory and is stored as a phonological code, reflected in the phonological similarity effect. Jones et al. (2006) however reported the similarity effect was largely confined to recency items, proposing that it reflects a perceptual-gestural process and rejecting the need for phonological short-term storage. Participants heard 20 lists of five, 6, 7, and 8 letters drawn from either eight similar sounding letters, BCDGPTVZ or eight dissimilar sounding letters, FHJKLRQW. Half of the participants whispered the word SEVEN while hearing the letters and half did not. There was a significant phonological similarity effect for all control conditions and all but the 8 letter list with suppression. Our participants maintained a phonological code, even with articulatory suppression with shorter lists. When the list length exceeded memory span, participants appeared to abandon phonological coding.

(PS.12.a) “Speed Transfer and Class Mergers via Conditional Discriminations: Effects of Differential Transfer Training with One or Two Class Members”

*Christina M. Pratt, Undergraduate; Advisor: Dr. Imam, Psychology

Eleven participants in four experiments demonstrated two independent groups of three three-member equivalence classes, one with and one without a speed contingency. Each participant then experienced transfer training and testing. During transfer training, either only one A-stimulus (with fast (Experiment 1) and slow (Experiment 2) contingencies), or two A-stimuli (with differential slow-fast contingencies on classes 1 and 3 (Experiments 3 and 4)) from the speed classes served as sample for the A-stimuli from the non-speed classes. Transfer test involved the remaining non-speed class members presented in the same session as training blocks (Experiments 1-3) or in separate testing sessions (Experiment 4). Test results showed undifferentiated changes in latencies of the non-speed class members (Experiments 1-3), and more differentiated changes consistent with class membership (Experiment 4). The results implicate discrimination of contingencies in engendering better differentiation of class membership. Funded by the Huntington and Codrington Foundations.

(PS.13.a) “Binge Eating Disorder and Substance Abuse Among Potential Bariatric Surgery Patients”

*Sarah Kuszczak, Kelsey Maya, Undergraduates; Advisors: Dr. Kathleen Ashton and Dr. Amy Windover, Psychiatry and Psychology, The Cleveland Clinic

Obesity is a leading health concern in the United States today; according to the American Heart Association, 66 million Americans are obese (2007). A person with a Body Mass Index over 30 is considered obese. Many of these individuals suffer from Binge Eating Disorder (BED), or the consumption of large amounts of food in a brief period of time, marked by the individual’s feeling of loss of control or guilt (Sarwer, et al., 2004). A common correlate of BED is substance abuse. Six hundred and thirty one patients (age, $M = 45.82$ years) at the Cleveland Clinic interested in bariatric surgery were clinically interviewed by psychologists. Patients filled out the Eating Behavior Checklist (EBC), which asked about eating habits. A high score on the EBC is synonymous with BED. The data revealed that those with a history of or current substance abuse were more likely to score high on the EBC. Funded by the Huntington and Codrington Foundations.



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(PS.14.a) “Narcissism, Mortality Salience, and Prejudice Against Homosexual Males”

*Kelsey Maya, Undergraduate; Advisor: Dr. Yost, Psychology

The purpose of the present study was to examine the effects of narcissism and mortality salience on the evaluation of an out-group member (i.e. a homosexual). Male participants ($n = 42$) were randomly assigned to either a control or mortality salience condition, and later read about a bad dining scenario where the waiter was either a homosexual or heterosexual male. Participants were asked to determine a tip to give to the waiter on a \$100 bill. Results of the analysis revealed a significant main effect for narcissism, but no other effects were significant. Those scoring relatively high on narcissism, on average, gave lower tips than those scoring relatively low on narcissism. Results failed to support the research hypothesis. It is suggested that the experimental materials be revised.

(PS.15.b) “Obstetric Fistula”

*Christine Minges, *Alena Neton, *Jessica Serbin, Undergraduates; Advisor: Dr. Lissemore, Biology

A vaginal fistula is a hole between the vaginal wall and the bladder. An obstetric fistula forms as a result of prolonged, obstructed labor. This condition is virtually unheard of in developed countries, but prevalent in impoverished countries where maternal care is less common. Women with this condition leak urinary waste. They are seen as social outcasts and are often abandoned by family because of incontinence. This can cause them to fall further into poverty, which worsens associated conditions like malnutrition and depression. Most fistulas can be fixed with a simple surgery. Even so, it is estimated that there are up to 2,000,000 untreated fistulas globally. These estimates are crude and difficult to obtain because many women are unlikely to report the condition due to shame and social stigma. Strong efforts are being made to prevent obstetric fistulas simply by raising awareness, providing expecting mothers transportation to maternal care facilities.

(PS.16.a) “The Killer Epidemic”

*Brittany Daugherty, Undergraduate; Advisor: Dr. McWeeny, Philosophy

My research topic will be on HIV/AIDS and its dominance in African American communities in the Cleveland Area. I will speak about the virus and how it is transmitted, its percentages and what approaches are being taken to prevent new cases of outbreaks. I will also briefly mention government policies and organizations as well as people who are assisting in educating people about this devastating epidemic. With my research I hope to influence the minds of young people in 3 ways: to abstain from sex, practice safe sex, and to get an HIV test. The teachings of these key goals can make a difference in young people's lives and can even save their lives. I will be answering two main questions in my research on HIV/AIDS: Why is the AIDS rate so high in Cleveland and what approach(s) is Cleveland taking to educate people about AIDS? Funded by the STARS Program.

(PS.17.a) “Schistosomiasis”

*Stephanie Mudery, *Lisa Schnell, Undergraduates; Advisor: Dr. Lissemore, Biology
Schistosomiasis, also known as biharzia, is a disease caused by parasitic worms penetrating human skin and is second only to malaria among tropical diseases as a cause of morbidity. While Schistosomiasis is not found in the United States, it is endemic in over 74 developing countries; 80% of these being in Sub-Saharan Africa. More than 200 million people are infected worldwide and it is estimated that another 600 million are at risk. It affects the health of children, women, and irrigation workers disproportionately in the population causing anemia, vitamin A deficiency, and loss of appetite. The current goals of prevention are to reduce the



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number of worms in each person instead of reducing the number of people infected with worms, to improve the sanitation systems, to eliminate water-borne snails, to involve the school systems and to utilize special health campaigns.

(PS.18.a) “Hepatitis C in the United States”

*Matthew Rendulic, *Lauren Ruggiero, Undergraduates; Advisor: Dr. Lissemore, Biology
Hepatitis C is the most common chronic viral bloodstream infection in the United States. Currently, the prevalence of HCV is approximately 4.1 million and the incidence is 26,000 new cases per year. At-risk groups for HCV infection include individuals aged 20-39, men, Hispanics and African Americans, HIV or HBV co-infected patients, and hemophiliacs. Research as found HCV to be linked with poverty by its association with low socioeconomic levels, Hispanic and African American populations, low education levels, increased incarceration time, increased number of sexual partners, and mental illness. To prevent contracting HCV, a person could not use recreational IV drugs, avoid sharing personal hygiene tools such as toothbrushes and razors, and always follow barrier precautions. To prevent spreading HCV, a person can avoid sharing personal items, cover any open wounds, and stop donating semen/body tissues. The only current effective treatment for Hepatitis C is combination therapy with pegylated interferon and ribavirin.

(PS.19.b) “Diarrheal Diseases”

*Laura Pareso, *Jeannine Stiglitz, Undergraduates; Advisor: Dr. Lissemore, Biology
Diarrhea is one of the leading causes of morbidity and mortality among children under the age of five in developing countries and is the 2nd most frequent illness in the world. Approximately 2 million children die each year as a result of dehydration caused by diarrhea. A variety of pathogens including bacterial, viral and parasitic organisms can cause diarrhea. In developing countries, the high frequency of diarrhea contributes to negative long-term effects on growth, fitness, and cognition in young children. Risk factors for diarrhea include malnutrition, lack of access to a clean water supply, inadequate personal hygiene, failure to educate on how to treat diarrhea, and HIV. Recent developments such as a vaccine for rotavirus and oral rehydration therapy (ORT) have helped to reduce the number of deaths associated with diarrhea.

(PS.20.a) “Maternal Mortality”

*Liberty Bost, Anne White, Undergraduate Students; Advisor: Dr. Lissemore, Biology
Pregnancy can lead to many health complications that may result in death. Maternal mortality tragically ends the lives of hundreds of thousands of women yearly. Maternal mortality is an occurrence that is seen primarily in impoverished countries because women living in developing nations lack access to necessary healthcare before, during, and after pregnancy. The disparity between maternal mortality ratios for developed and undeveloped nations has been noted as the “largest discrepancy of all public health statistics.” However, the lower maternal mortality ratio in developing nations proves that there are successful ways to decrease the number of maternal deaths.

(PS.21.a) “Effects of Poverty on Syphilis and Gonorrhea Rates in the U.S.”

*Anne McHugh, *Kellie Ohl, Undergraduates; Advisor: Dr. Lissemore, Biology
There are 25 sexually transmitted diseases caused by bacteria and viruses. Each year, 333 million cases of curable STDs occur in the world. The United States is not invincible to these diseases either. In the U.S., 1 in 5 people has an STD. Two of these diseases, syphilis and gonorrhea, have a long history in the U.S. Both diseases are caused by bacteria that are very



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treatable, yet both still persist. One of the interesting things about both of these diseases is that they affect the poor disproportionately. Research has shown that STDs are more prevalent in the South, which is also the poorest region in the United States, and that syphilis and gonorrhea are particularly a burden to African Americans, who are especially affected by poverty in the South.

(PS.22.b) “Poliomyelitis: A Virus on the Verge of Eradication”

*Nick Siegerferth, *Heather Timko, Undergraduates; Advisor: Dr. Lissemore, Biology
Polio is a viral disease that has afflicted hundreds of thousands of people all over the world in the last few decades. This disease is predominant in the most poverty stricken places in the world including sub-Saharan Africa, India and parts of East Asia. People stricken with Polio often do not show symptoms but when symptoms do show they are usually severe in nature. One of the most recognizable symptoms of Polio is Acute Flaccid Paralysis. This condition is what makes the limbs look floppy in nature and results in the grossly deformed posture seen in many Polio cases. Global efforts are being made to eradicate Polio completely. Progress has been made and Polio is now endemic in only four countries in the world due to huge vaccination efforts in afflicted areas. With the cooperation and persistence from the global community, it may be possible to rid the world from this horrible disease forever.

(PS.23.a) “Mechanisms of Female Urinary Incontinence in Diabetes”

*David Sybert, Undergraduate; Dr. Hui Pan, Lindsay Eggers, Dr. Danli Lin, and Dr. Margot Damaser, Biomedical Engineering Department, Cleveland Clinic Foundation; Advisor: Dr. Lissemore, Biology

The objective of this study was to investigate if the effects of pudendal nerve crush (PNC) in diabetic animals resulted in decreased pudendal nerve regeneration. We performed a PNC or sham PNC 8 weeks after induction of diabetes to investigate the effects of pudendal nerve injury in diabetic animals. Control groups received PNC or sham PNC and consisted of both diuretic animals given 5% sucrose in their drinking water for 8 weeks and age-matched controls with normal drinking water. Leak point pressure (LPP) testing for decreased urethral resistance, indicative of stress urinary incontinence, was performed 4 days after PNC or sham PNC. A difference was shown for peak LPP between diabetic PNC and diabetic sham PNC; however, when taken as a group significant differences exist between both PNC and sham PNC animals. The results suggest that pudendal nerve crush after short-duration diabetes decreases urethral resistance as measured by decreased LPP.

(PS.24.a) “Two-Dimensional Electrophoresis of I κ B kinase beta”

*Jennifer Sopkovich, Undergraduate; George Stark, Ph.D., F.R.S., Distinguished Scientist, David Shultz, Medical Student, Molecular Genetics, Lerner Research Institute, The Cleveland Clinic

Two dimensional (2D) electrophoresis, a technique used to separate proteins was utilized to study I κ B kinase beta (IKK β). IKK β is a component of the IKK complex responsible for phosphorylating I κ B. IKK is also involved in interferon (IFN) γ dependent gene expression. The focus of the project was to study the post translational modifications of IFN γ treated IKK β protein. In order to compare treated and untreated IKK β protein, the optimal conditions for 2D electrophoresis of IKK β were determined. Myc-tagged IKK β protein was isolated from samples by immunoprecipitation and eluted with six different solutions. The optimal eluting solution was determined to be 9.8 M urea with 4% CHAPS, but 8 M urea, 7 M urea and 2 M thiourea, and 9.8 M urea were all tested with 2% and 4% CHAPS. Successful results were obtained with untreated IKK β , but not with treated IKK β .



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(PS.25.a) “Fly Space and Beyond”

*Liz Smietana, Undergraduate; Advisors: Dr. Norris and Dr. Schneider, Mathematics & Computer Science

The Anoto Fly pen is a miniature computer which makes use of a position coding pattern in “Fly Space.” This pattern is composed of millions of dots which are arranged so that sections of a certain size appear at most once. This allows a position to be uniquely determined by looking only at a small portion of the pattern. During the past summer I had the opportunity to research position coding patterns and wavelets at Grand Valley State University in Michigan. To illustrate this research, this poster will explore Fly Space, as well as an original pattern, in order to understand what a position coding pattern is and how it works.

(PS.26.a) “Root Response of Native and Invasive Forbs to Resource Heterogeneity”

*Christina E. Martin, Molly R. Falasco, Undergraduates; Jeremy J. James, USDA-ARS; Advisor: Dr. Drenovsky, Biology.

Soil nutrient heterogeneity is ubiquitous in natural systems, and a plant’s ability to exploit nutrients depends, in part, on root morphological plasticity. Our objective was to determine whether native and invasive plants differed in root foraging traits in response to heterogeneous nutrient distribution. We compared a suite of root-related traits among four native and invasive species exposed to heterogeneous (patch) or homogeneous (control) nutrient distribution. Overall, invasive species allocated more biomass belowground, regardless of treatment, although in some cases these responses were species-specific. Invasive species tended to have greater total root length, specific root length, and root length density in patch treatments, but responses were more variable in native species. Creating many, thin roots in nutrient patches may increase invasive species’ ability to exploit soil nutrients, augmenting their competitive ability. Given native species variable responses to nutrient heterogeneity, restoration efforts should focus on selecting those with morphologically plastic root systems. Funded by the Huntington and Codrington Foundations.

(PS.27.a) “Human African Trypanosomiasis”

*Mary Bridget Bowen, *Laura Cronin, Undergraduates; Advisor: Dr. Lissemore, Biology
Human African Trypanosomiasis (HAT), also known as African sleeping sickness, is a parasitic disease transmitted to a human host through the bite of a tsetse fly. HAT only exists in sub-Saharan Africa and outbreaks are most common in areas stricken with poverty or disrupted by war. Over the past few decades, the incidence of HAT has dramatically increased and parasite resistance has become a growing concern. 60 to 70 million people in the 36 countries of sub-Saharan Africa are at risk of contracting HAT. 22 of these countries are considered to be among the least developed countries in the world. 300,000 to 500,000 individuals are affected by HAT each year resulting in 60,000 deaths per year. In some African communities, particularly in the Congo and Sudan, HAT has become the greatest cause of mortality, even beating HIV/AIDS. This re-emergence of HAT has significantly harmed Africa’s social and economic condition.

(PS.28.a) “Comparison of Abutting Electron Field Treatment vs. Tomotherapy Hi-Art Treatment for Scalp Sarcoma”

*Benjamin White, Undergraduate; Valdir Colussi, PhD.; Ravi Kulasekera, PhD.; Donnie Dobbins, CMD; Barry Wessels, PhD.; Timothy Kinsella, MD, University Hospitals
Purpose of the study was to compare static abutting electron field treatment with photon image guided radiation therapy for treatment (Tomotherapy) of scalp lesions. Treatment of Scalp Sarcoma has been traditionally treated using the very un-uniform and labor intensive



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abutting electron field therapy. This study compares the electron plan comprised of three static beams with the new Tomotherapy unit. Film dosimetry and thermoluminescent dosimeters (TLD) were used to verify patient predicted the treatment planning. TLD measurements were taken during patient treatment as well as with phantoms when the region of interest was not accessible during treatments.

(PS.29.b) “*Drapernaldia appalachiana* (Chaetophoraceae, Chlorophyceae), a putative new species from the Great Smoky Mountains National Park”

*Dr. Jeffrey R. Johansen, Biology; Rex L. Lowe, Biology, Bowling Green State University
A putative new chaetophorean green alga, which we provisionally name *Drapernaldia appalachiana* pending publication, was recently collected from a karstic sink hole in Cades Cove, Great Smoky Mountains National Park. Its sister taxon is likely *Drapernaldia platyzonata* Hazen, based on the following shared characteristics defining the two as a monophyletic clade: production of secondary branches, sparse production of fascicles, perpendicularly arranged glomerulate fascicles on short stalks, and reticulate plastids. This new species is distinguished from *D. platyzonata* based on its distinctly swollen axial cells, axial cells that are longer than wide, and maximum axial cell size. We also saw both rhizoids and zoosporangia, features not reported for every species. This taxon is just one of several new species of algae found in the park as a result of the All Taxa Biodiversity Inventory currently underway in Great Smoky Mountains National Park.

(PS.30.b) “*Spicaticribra kingstonii*, gen. nov et sp. nov. (Thalassiosiraceae, Bacillariophyta) from Great Smoky Mountains National Park, USA.”

*Dr. Jeffrey R. Johansen, Biology; J. Patrick Kociolek, Diatom Collection, California Academy of Sciences; Rex L. Lowe, Biology, Bowling Green State University
A new genus and species in the Thalassiosiraceae, Thalassiosirales was discovered in Fontana Lake, a reservoir in the Tennessee River Drainage, North Carolina, which makes up much of the southern boundary of Great Smoky Mountains National Park. Our taxon, *Spicaticribra kingstonii*, most closely resembles *Thalassiosira*, but differs in several key aspects. The most diagnostic criteria for *Spicaticribra* are the presence of spicate cribra that do not match up to the external openings of the areolae and the absence of fultoportulae on the valve face. The internal cribra of *Spicaticribra* are superficially similar to the cribral patterns of *T. pseudonana* and *T. guillardii*, but these species are lightly silicified forms that do not have round or hexagonal areolae visible in external views. Additionally, *Spicaticribra* lacks external extensions on the marginal fultoportulae, a condition which is unusual for *Thalassiosira*.

(PS.31.a) “Intraspecific Color and Morphological Variation in Floral Specie, *Penstemon pachyphyllus*”

*Laura Cronin, Undergraduate; Andrea Tietmeyer Kramer, Graduate Student, UIC; Rebecca Tonietto, Chicago Botanic Gardens; Advisor: Jeremie Fant, Chicago Botanic Garden Conservation Science

The species of interest is, *Penstemon pachyphyllus*, and the issues in question are whether discrete populations of *P. pachyphyllus* exhibit significant color and morphological variation, and if such variation can be attributed to differences in the regional pollinator communities. Flower dimensions were manually measured to determine the extent of morphological variation and the flower color was quantified using Adobe Photoshop to assess differences in coloration. The findings showed significant variation existing between the isolated populations in Snake Mountain Range, along East Schell Creek, and at high and low elevations in Zion National Park. Moreover, a population comparison revealed trends in the prevailing disparity.



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The degree and pattern of variation suggests that individual populations have shifted towards or away from the species-defining “bee-pollination syndrome” in response to the pressures imposed by local pollinator assemblages. Program in Plant Biology and Conservation Science, supported by the National Science Foundation-REU program.

(PS.32.b) “Effectiveness of Dialectical Behavior Therapy in Individuals Diagnosed with Eating Disorders: An Evaluation of Statistical and Clinical Significance”

*Joshua Marcin, Undergraduate; Advisor: Dr. Ben-Porath, Psychology

The present study was designed to evaluate the effectiveness of dialectical behavior therapy treatment in 38 eating disordered patients who presented with severe eating disordered symptoms and 17 patients who presented with moderate symptoms. Outcomes of an uncontrolled clinical trial were evaluated for statistical and clinical significance. Results indicated a statistically significant reduction on several eating disordered outcomes in both groups. RCI scores on group data indicated significant change on several outcomes, but normative group comparisons indicated that overall the samples were not restored to a normative range of functioning on most outcomes. However, when data were examined using the RCI index, 50% of the sample with moderate symptoms was deemed to have made reliable improvement and 33% of the sample with severe eating disorders symptoms was deemed to have made reliable improvement as well as achieving post treatment scores. Funded by the Huntington and Codrington Foundations.

(PS.33.a) “Optogalvanic Spectroscopy”

*Stefanie Marotta, Kurt Nesbett, Undergraduates; Advisor: Dr. Piracha, Physics

This 2006 summer research was done in collaboration with and under the supervision of Dr. Naveed Piracha, Professor of Physics at John Carroll University, along with Kurt Nesbett, a fellow undergraduate student. We report on the temporal evolution of the optogalvanic signal in neon gas using a commercial hollow cathode lamp in conjunction with a Nd:YAG pumped dye laser system. The optogalvanic signal is a change in impedance of the discharge that occurs when electrons are excited to a higher level by certain wavelengths of the laser. We recorded three transitions excited from each of the 1s levels of neon. These transitions were recorded for a range of discharge current to study the decay rates of these states. We conclude that electron collisional decay is the dominant factor in creating the optogalvanic signal. Funded by the Huntington and Codrington Foundations.

(PS.34.a) “Unphosphorylated stat3 Drives Gene Expression by Binding κ B Element of Rantes Promoter”

*Clayton Petro, Undergraduate; George Stark, Lerner Research Institute, Cleveland Clinic Foundation; Advisor: Dr. Mascotti, Chemistry

Tyrosine-phosphorylated STAT3 activates the expression of many genes, including its own STAT3 gene. However, it was recently found that unphosphorylated STAT3 (USTAT3) activates a set of genes completely unique from its phosphorylated counterpart. These genes (including RANTES, IL6, IL8, MET, and MRAS) were identified using Chromatin-Immunoprecipitation. The RANTES gene promoter, consisting of CRE, ISRE and κ B elements, showed greatest induction by USTAT3, and was chosen as a working model. Normal human mammary epithelial hTERT-HME1 cells expressing WT-STAT3 or Y705F-STAT3 were transfected with RANTES promoter-driven luciferase constructs. Mutations and deletions to these promoter constructs were introduced to identify the exact elements for USTAT3 up-regulation. A luciferase assay indicated that while activity was not diminished by CRE or ISRE disruption, κ B mutations severely inhibited promoter activation. The results support a



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USTAT3 interaction with κ B and are consistent with the finding that most USTAT3 induced promoters contain κ B elements.

(PS.35.b) “Analyzing Copper(II) Oxide for Manganese and Zinc Using Atomic Absorption Spectroscopy”

*Genna L. Andrews, Undergraduate; Advisor: Dr. Setter, Chemistry

This paper describes the use of Flame Atomic Absorption Spectroscopy to detect small amounts of zinc and manganese on the surface of copper(II) oxide powder. FAA is used to monitor the zinc and manganese in solution as the powder particles dissolve. This allows for determination of their content on the surface and within the copper(II) oxide. The rate at which the two metals appear in solution is proportional to the square root of time since the powder was added. This analysis uses a dilute acid solution in a unique filter arrangement described earlier. The sample is introduced to the FAA via a "microboat" allowing 20 μ L of solution to be analyzed by the FAA, therefore not altering the concentration of the solution. Basic solutions are also reported here, however neither the zinc nor the manganese dissolve off the copper(II) oxide powder surface when the pH is 7 or greater.

(PS.36.a) “Oxidant Induced S-Glutathiolation of c-ABL in HEK 293 Cells”

*John F. Sullivan, Undergraduate; Advisor: Dr. Chai, Chemistry

c-Abl is a nonreceptor tyrosine kinase that mediates the cellular response to oxidative stress and is involved in the initiation of cellular apoptosis. S-glutathiolation, the formation of mixed disulfides of glutathione with cysteine residues of proteins, is a physiological mechanism that is enhanced by an oxidative environment. In order to understand the physiological role of c-Abl S-glutathiolation, in vivo studies were performed with c-Abl transfected HEK 293 cells. S-glutathiolated c-Abl was pulled out from oxidant treated cells by immunoprecipitation. The in vivo data led to the conclusion that not only was c-Abl S-glutathiolated by both diamide and *t*-butyl hydroperoxide in HEK 293 cells, but that there was a correlation between S-glutathiolation and intracellular glutathione decrease. Therefore, the proposed mechanism is that S-glutathiolation of c-Abl serves as a regulatory mechanism to prevent irreversible oxidation of c-Abl and thereby maintain the kinase activity of c-Abl in oxidant treated cells. Funded by the Huntington and Codrington Foundations.

(PS.37.a) “Mechanistic and Synthetic Studies of Polystyrene Polymerization Using a Sterically Hindered Alkyl Lithium Initiator”

*Olga Masliantchouk, Undergraduate; Advisor: Dr. Michael Nichols, Chemistry

Polymerization reactions of styrene with the sterically hindered initiator trimethylsilylmethyl-lithium (TMSMeLi) in the presence of the ligand N,N,N',N'-tetramethylethylenediamine (TMEDA) were studied. The kinetics of the reaction were monitored using proton NMR and visible spectroscopies. The kinetic orders of styrene, TMSMeLi, and TMEDA were determined to be 1, -1, and 1, respectively. More detailed mechanistic studies are currently being performed using Li-6 NMR. The molecular weight distributions of the polystyrene products were determined using Gel Permeation Chromatography (GPC), and have been found to be approximately 400-2000 amu. The orientation of styrene addition was determined by two-dimensional and deuterium NMR. This project was funded by grants from the John Huntington Foundation for Education and the George W. Codrington Charitable Foundation to JCU.



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(PS.38.a) “Origin of Surface Ordered Phase in Poly(*n*-alkyl acrylates)”

*Melissa Zwilling, Undergraduate; Ping Yuan Hsu, graduate student, University of Akron; Advisor: Dr. Ali Dhinojwala, Polymer Science, The University of Akron
When most substances melt, the surface melts before the bulk. However, for small molecule alkanes and alcohols, the bulk actually melts before the surface. Similarly, polymers with alkyl side-chains have been observed with surface layers melting up to 10K higher than the bulk. Two transition states have been observed on the surface of poly(*n*-alkyl acrylate); crystalline to smectic-like, and smectic-like to liquid. Methyl ends have lower surface energy than methylene groups, which may be the reason for surface freezing. If this hypothesis is correct, then replacing the methyl with a more polar group would eliminate this surface freezing. To test this, we have synthesized 12-(acryloyloxy)-1-dodecanol through transesterification of acryloyl chloride and 1,12-dodecanediol. These monomers were then polymerized using a free radical method with AIBN as the initiator and analyzed with GPC and NMR. Surface tension measurements using a Wilhemy balance are underway to determine if an ordered surface phase is present.

(PS.39.b) “Nanostructured Lead Selenide”

*Ian Steward, Undergraduate; Dr. Clemens Burda and Xiofeng Qiu, Case Western Reserve University; Advisor: Dr. Dyck, Physics
Lead selenide is a classic thermoelectric material (TEM) that has been studied rigorously in bulk form for many years. TEMs are materials that employ the Seebeck or Peltier effects to convert heat energy into electrical energy and vice versa. A problem keeping TEMs from popular use is the rather exorbitant cost and relative inefficiency (when compared to contemporary heating and cooling systems). Recent developments have seen the possibility of crafting lead selenide nanoparticle thin films. The hope is that this new engineering process will result in higher values for the thermoelectric figure of merit, ZT. To test this hope the resistance, Seebeck coefficient, and Hall coefficients of some lead selenide samples were measured over temperatures ranging from 50–300K, and analyzed to compare with other current TEMs. Through these measurements, along with estimations of the sample dimensions, a limit can be placed on ZT that may help future research classify this new formation of lead selenide. Funded by the Huntington and Codrington Foundations.

(PS.40.a) “Study of Mn-SOD/Nucleic Acid Interactions by Fluorescence Quenching: Preferential Binding to Single-stranded Nucleic Acids”

*Lana Bengez, Angela C. Smolik, Undergraduates; Dr. Mascotti, Chemistry
Bacterial manganese superoxide dismutase (MnSOD) has been found to associate with double stranded DNA based on in situ immunostaining, gel retardation and nitrocellulose assays. Since then, no studies have been published with regard to MnSOD-RNA interactions. Also, no variation of solution conditions, or thermodynamics, have been reported. We present evidence of fluorescence quenching upon binding single-stranded (ss) RNAs as well as double stranded plasmid DNA. We report the binding affinity (K_{obs}) as a function of monovalent salt concentration for each. Additionally, we have measured K_{obs} at different temperatures, leading to van't Hoff enthalpy determinations, also as a function of [salt]. At any given [salt], the binding affinity of MnSOD is higher for the ss RNAs than for the dsDNA, indicating that although MnSOD has the potential to bind chromosomal DNA, its main function may be to bind either single-stranded regions of DNA or to mRNAs. Funded by JCU Chemistry Department.



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(PS.41.a) “The Euclid Creek Volunteer Water Quality Monitoring Program”

*Dr. Michael A. Nichols, Chemistry

The Euclid Creek Watershed, located in Cuyahoga and Lake Counties, covers 24 square miles within 11 municipal communities and drains into Lake Erie. It is one of the most highly urbanized areas along the Ohio Lake Erie coastline. In 2006, the Euclid Creek Volunteer Monitoring Program was established and its goal is to provide participatory environmental education to adults and students as part of a community-based watershed stewardship effort to monitor and document water quality of the watershed and establish long-term trends. It is currently being submitted for approval under Ohio EPA's Credible Data Criteria Program. The Program consists of monthly water quality monitoring by citizen volunteers/groups, grade school, high school, and college students. JCU is supporting this program by serving as a central repository for portable monitoring equipment, analyzing the volunteer-collected water samples and hosting a website containing the data. An overview of the program will be presented.

(PS.42.b) “Analysis of Copper(II) Oxide Powder using High Pressure Liquid Chromatography”

*David Syper, Undergraduate Student, Advisor: Dr. Setter, Chemistry

This study uses High Pressure Liquid Chromatography (HPLC) to investigate the surface composition of copper(II) oxide powder. The study reports testing of five standard solutions which contain varying amounts of Copper, Manganese, Zinc and Iron on the HPLC. The calibration curves generated from these standards are used to determine the presence or absence of these components and their respective concentrations on the surface of the powder sample. The approximate retention times for the components in the standard solutions are also determined on the HPLC and aid in detecting these elements on the sample powder. Copper, Manganese and Zinc are both separated and detectable when using the HPLC. Further studies are currently being performed on the HPLC with a copper(II) oxide powder sample in order to begin determining its actual surface composition. During these studies the powder is placed directly in the HPLC for dissolution using a previously described technique.

(PS.43.a) “Trapping of Micro-spheres with Optical Tweezers”

*Andrew Gibel, Benjamin White, Undergraduates; Dr. Piracha, Dr. Dyck, Physics

Since its presentation, the method of optical particle trapping deemed, “Optical Tweezers” has grown in popularity and is being implemented in multiple ways. In an inexpensive configuration containing minimal optics and using a visible diode laser with a power output of 35mW, trapping of microscopic polystyrene spheres was achieved. Optical tweezers in practice are used in biophysics in the trapping and manipulation of cells and other organisms. Using a computer camera, we have obtained videos of this trapping and will later use analytical software to determine particle speed which will be useful in future quantitative calculation of trap strength and force.

(PS.44.a) “The Origin and Evolution of the EPRS WHEP Domain”

*John Francis, Undergraduate; Dr. Partho Ray, Dr. Paul Fox, Cleveland Clinic Foundation; Advisor: Dr. Lissemore, Biology

The glutamyl-prolyl tRNA synthetase (EPRS) is a bifunctional tRNA synthetase that can promote translational silencing of ceruloplasmin mRNA in humans. The EPRS is unique because it is the only aminoacyl tRNA synthetase that is fused together by a linker region. In this linker region exists a series of WHEP domains that aid in the translational silencing of ceruloplasmin mRNA in humans. In this project, we constructed a phylogenetic tree to trace the origin and evolution of the EPRS WHEP domain. We have discovered a possible earlier fusion event in



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the EPRS WHEP that occurred before the divergence to the bilaterian lineage. We have pinpointed where certain gene duplications, or deletions, have occurred to give rise to a variant number of WHEP domains. We also detected a lineage specific fission in the Nematoda, suggesting a rare case of fission and fusion in the same gene.

(PS.45.a) "Experimental Design of an Undergraduate Laboratory Assay of the Shelf-Life of Beer"

*Nathan A. Moss, Undergraduate Student; Advisor: Dr. Miller, Chemistry

The well known "cardboard" off-flavor of beer when it has been left out of the refrigerator for some time is attributed to the products of free radical oxidation (FROx). At cool temperatures the FROx process is slower than that at higher temperatures. Industrial production and distribution of beer does not allow continual control over storage environments, but industry has methods of measuring the oxidative stability of beer to find an optimal shelf life for consumer satisfaction. Electron Paramagnetic Resonance (EPR) provides a useful technique to measure the degree of resistance in beer to FROx. Once the natural antioxidants in beer are consumed, during a time period known as "Lagtime," the beer becomes "skunked." "Lagtime" is directly related to shelf life. We will design a spin trapping method to measure this "Lagtime" and introduce the background, physical methods and EPR techniques used in this experiment to the undergraduate laboratory curriculum.

(PS.46.a) "Chagas' Disease"

*Kate Glass, Olga Masliantchouk, Undergraduate Students

Chagas' disease (American trypanosomiasis) is a disease relatively unheard of in the developed world, yet it is the 4th leading cause of death in Latin America. It is caused by the *Trypanosoma cruzi* parasite. It is endemic to 21 countries in Central/South America. Approximately 16-18 million people are currently infected with Chagas' disease. Transmission occurs through contact with feces of an infected triatomine bug, through blood transfusion, through organ transplantation, and congenitally. There are three stages of Chagas' disease: acute, intermediate, and chronic. If the disease reaches the chronic stage, it may cause damage to the heart, esophagus, and colon, leading to death. No vaccine is available for Chagas' disease. Insecticide spraying and the improvement of the household environment are ways of preventing the spread of the disease. Two drugs, Nifurtimox and Benznidazole, are available for treatment of acute cases. Both of these drugs are expensive and have serious side-effects.

(PS.47.b) "Effecting Change Through Endogenous Development: Ashoka and Social Entrepreneurship in Nepal"

*Shannon Kelly, Undergraduate; Christina Monson, School For International Training: Nepal; Anil Chitrakar, Ashoka Fellow

Through working with Ashoka Fellows and interviewing five recipients of Ashoka Fellowships I intended to look into the gap between the perceived fatalism inherent in Nepal's culture and the staggering success of Ashoka's social entrepreneurs. I have examined the arguments detailing Nepal's supposedly fatalistic culture and discussed these things with those currently involved in endogenous change. Through these discussions I examined problems within Nepal's society that impede development. However it is clear that those people motivated to make positive changes within Nepal are actively engaging in social entrepreneurship.



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(PS.48.a) “Role Annotations and Adaptive Aspect Frameworks”

*Matthew Kucera, Peter Kovacina, Joe Teets, Undergraduates; Advisor: Dr. Seiter, Mathematics & Computer Science

Over the past summer, the John Carroll Computer Science Department researched and began implementing ways to extend the capabilities of Aspect Oriented Programming (AOP). Currently features of AOP such as the pointcut do not offer the capabilities necessary for some applications; we researched several dynamic programming plug-ins for Java. We also researched a few dynamic programming languages such as; Ruby and PHP. These applications did not provide the features that we needed so we had to develop a new Java plug-in for the Eclipse IDE. We developed an AOP framework to simplify existing multi-agent swarm applications. The framework introduces a layer of observers that monitor the conflicts that arise during agent collaborations. The results collected during the observation can be used to experiment with different conflict resolution techniques in order to avoid system thrashing. Funding from the Huntington and Codrington Foundation.

(PS.49.a) “Ribosomal RNA leader sequence permits secondary structure determination of the ITS region in heterocystous cyanobacteria”

*Mary Bridget Bowen, Undergraduate; Advisors: Dr. Johansen, Dr. Martin, Biology
Microorganisms have very few morphological characteristics that allow for differentiating between organizational classes. The paucity of phenotypes necessitates the use of molecular characters. Typically, researchers compare the 16S rRNA gene sequence and 16S-23S Internal Transcribed Spacer (ITS) sequence to determine evolutionary relationships among species. However, exclusively examining the linear DNA sequences ignores the functionally relevant secondary structures. We cloned and sequenced the promoter/leader/16S rRNA/16S-23S ITS region from 15 heterocystous cyanobacterial species. The leader sequence and proximal 16S-23S ITS region base pairs in the secondary structure. The sequences we determined have permitted us to determine the secondary structure of the ITS, particularly the poorly studied structure of the beginning part of the ITS that binds to the leader. Student salary was funded by the Huntington Research Fellowship, and supplies were funded by the Department of Biology.

(PS.50.a) “Developing a Model to Investigate Tumor Interaction With Bone in Immune Competent Mice”

*Frank A. Luckino, III, Undergraduate; Advisor: Dr. Tatiana Byzova, The Cleveland Clinic Foundation

The purpose of my project was to assist in the development and characterization of a new model for investigating the interactions of tumor and bone, specifically in mice deficient in the bone matrix protein: secreted protein acidic and rich in cysteine (SPARC). SPARC expression is crucial for normal bone maintenance (turnover), but its role in tumor growth in bone is unclear. To investigate this, we used mice deficient in SPARC paired with either murine prostate or breast cancer cells, two carcinomas which in humans frequently metastasize to bone. Techniques that I learned during this work included cell culture, osteoblast and osteoclast harvest from mouse long bones, western blotting, nickel affinity chromatography for the purification of recombinant SPARC, and microCT analysis of tumor induced bone remodeling. While most of the in vitro studies concerning tumor and bone cell interactions are ongoing, microCT analysis indicates that both the breast and prostate cancer cell lines used promote extensive osteolysis.



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(PS.51.a) “John Carroll & New Orleans: Moved to Do More”

*Chester Banaszak, Peter Aubrey, Undergraduates

In the wake of Hurricane Katrina, John Carroll University has sent many of its own to the Gulf Region to assist in the relief efforts. By May, six trips will have already been success stories. Students 1,200 miles away here in Ohio are taking initiative to rebuild and renew hope in a city battered by tragedy. Not only are we saving the homes for the families we help, we also revitalize in them a sense of community and optimism that they desperately need. This poster project will outline the work that we have accomplished, the families we have helped, the students who have given up their time to tackle these major issues, and the need for more assistance for the Gulf region.

(PS.52.a) “Magneto transport measurements as a function of pressure on $Sb_{2-x}V_xTe_3$ thin films”

*P. C. Quayle, Undergraduate; Y. -J. Chine and C. Uher, Physics, University of Michigan; Advisor: Dr. Dyck, Physics

Diluted Magnetic Semiconductors (DMS) are semiconductor materials into which a small concentration of magnetic ions have been introduced. They are of great interest because of their combined semiconducting and magnetic properties, and the applications that they promise. The focus of this study is Sb_2Te_3 , our semiconductor host, doped with the magnetic ion Vanadium. Both carrier concentration and ferromagnetic transition temperature have been shown to be pressure dependent in $Sb_{2-x}V_xTe_3$ single crystals with $x=0.03$. The Molecular Beam Epitaxy growth process allows for the growth of thin films with a Vanadium content of an order of magnitude greater than single crystals. We present data displaying the effect of pressure on the magnetic properties of thin film samples with $x \leq 0.32$. This pressure dependence allows for theoretical insight into the physics underlying the properties of DMSs and furthers the cause of developing a room temperature ferromagnetic DMS. Supported by Research Corporation.

(PS.53.a) “The Effect of Perceptual Set on Global and Local Processing”

*Tim Warner, Undergraduate; Advisor: Dr. Yost, Psychology

The global-precedence theory is the idea that people see whole images before detailed images. The purpose of the present study is to determine whether a person responds faster to whole images or detailed images and whether the type of instruction used can impact the process. In two separate conditions, instruction for whole images ($n = 25$) and detailed images ($n = 27$), participants were presented with the same stimuli. Based on past research, it was expected that there would be faster responses for larger, whole images and that the instruction used will elicit faster responses for whole images compared to smaller images. However, there was only a marginally significant difference for the type of instruction, which means that the results are likely to be significant if more participants took the study. Future research should employ a larger sample and increase the number of stimuli.

(PS.54.a) “Analyzing Copper (II) Oxide Powder with Differential Pulse Stripping Voltammetry”

*Lindsey Syktich, Undergraduate; Advisor: Dr. Setter, Chemistry

This paper describes the development of a technique to determine the surface composition of powders with differential pulse stripping voltammetry. This technique is demonstrated with copper(II) oxide. Differential Pulse is a highly sensitive type of anodic stripping voltammetry. It can be used to analyze the surface of powders by monitoring the dissolution of the powder in a



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solution without requiring the separation of the solution from the powder. This describes experiments run using the powder and a three electrode potentiostat that focused on seeing the activity of copper compared to zinc. The working electrode is a thin film mercury electrode. Standardization studies are included that determine the effects of analyte concentration and the amount of mercury on the electrode to the signal peak. Further studies will concentrate on improving the resolution of the small zinc signal in the presence of the far larger copper signal from the copper(II) oxide powder.

(PS.55.a) “Transfection in HUVEC cells versus Bovine cells”

*Anne McHugh, Undergraduate; Smarajit Bandyopadhyay, Ph.D. Department of Cell Biology, Cleveland Clinic Foundation

Transfection is a commonly used technique in cell biology, in which a foreign piece of DNA is inserted into a cell. In this experiment, transfection of a 510 bp promoter sequence and GFP in HUVEC and bovine cells were compared. The goal was to initiate the expression of E-selectin, a cell adhesion molecule that plays a role in inflammation. Each group of cells was treated with either targetfect or lipofectin reagent, as well as, TNF- α . In the end, only the bovine cells treated with lipofectin had significant induction values of over 20-fold.

(PS56.a) “Identification of TNF- α receptor-II (p75) specific pro-inflammatory gene expression in human endothelial cells”

*Matt Lemke, Undergraduate; Unni M Chandrasekharan and Paul E DiCorleto, Department of Cell Biology, Lerner Research Institute and Cleveland Clinic Lerner College of Medicine of Case Western Reserve University, Cleveland Clinic Foundation

Tumor necrosis factor- α (TNF- α) binds to two distinct cell surface receptors; TNF- α receptor-I (TNFR-I: p55) and TNF- α receptor-II (TNFR-II: p75). In the present proposal, our goal was to determine the role of p75 on pro-inflammatory gene expression in human endothelial cells (hEC) in response to TNF- α . hEC express both p55 and p75 constitutively. To achieve our goal, we used small interference RNA (siRNA) technique to suppress p55 specifically in hEC and then determined the TNF- α -mediated target gene expression using Real time quantitative PCR technique. We identified that p75 activity is critical for TNF- α -induced ICAM-1, whereas; p75 had partial contribution to the induction of E-selectin, VCAM-1 and MCP-1 in hEC. Identification of genes that are specifically induced by p75 in hEC will lead to new hypotheses about the underlying mechanisms of the cell's response to TNF- α .

(PS.57.a) “Synthesis and Calibration of $\{(BiSe)_{1.10}x(NbSe_2)_y\}$ ”

*Ryan Tappel, Undergraduate; Colby Heideman, the Dave Johnson Lab, University of Oregon
In the summer of 2006, the National Science Foundation funded a fellowship for undergraduates and professors interested in solid-state chemistry. The University of Oregon hosted the initial week of summer lectures before the participants departed throughout the country to work on various projects. The Dave Johnson Lab at the University of Oregon dedicates its time and efforts to the development of thermoelectric materials, used by NASA to power spacecraft. A more common application of thermoelectrics would be the replacement everyday compressor refrigerators if efficient enough material were developed. The series of compounds $\{(BiSe)_{1.10}x(NbSe_2)_y\}$ was believed to be practical materials for the synthesis of thermoelectrics using interwoven layered materials, which allows a compound to possess the physical properties of its constituents. The $\{(BiSe)_{1.10}x(NbSe_2)_y\}$ system was successfully synthesized and calibrated, and it is ready for further exploration of its physical properties and how useful a thermoelectric it would be.



POSTER ABSTRACTS

(PS.58.a) “The Role of NOS Hinge Region in Electron Transfer”

*Anthony T. Mustovich, Undergraduate; Mohammad Mahfuzul Haque; Koustubh Panda; Jesus Tejero Bravo; Kulwant S. Aulak; Mohammed Fadlalla; and Dennis J. Stuehr, Department of Pathobiology, Lerner Research Institute, The Cleveland Clinic
Nitric oxide (NO) is an important signaling molecule serving the body with a wide variety of physiological processes. NO is produced by a group of enzymes known as Nitric Oxide Synthases (NOSs). There are three isoforms of NOS: neuronal NOS (nNOS), inducible NOS (iNOS) and endothelial NOS (eNOS), all of which convert arginine to citrulline generating NO in the process. Although sharing a similar homology, each has different modifications and catalytic behaviors that enable their specific roles in biology. Of note, NO synthesis activity of eNOS is 5 to 10 times lower than that of nNOS and iNOS. It was believed that certain structural elements of the eNOS protein may contribute to this discrepancy. An eNOS and nNOS chimera was constructed, purified, and exposed to a variety of catalytic assays. It was determined that an eNOS protein bearing certain nNOS structural characteristics had catalytic behaviors similar to nNOS wild-type protein.

(PS.59.a) “Alternative Splicing and its Role in Cardiac Development”

*Tony Macedonia, Undergraduate Student; Andrea Ladd, Ph.D. Department of Cell Biology, Cleveland Clinic Foundation
Alternative splicing is a mechanism by which different mRNA sequences are generated from identical primary transcripts. These different mRNAs can lead to the translation of different proteins with distinct functions. It is believed that over 74% of human genes are alternatively spliced. However, most previous studies have not focused on pre-mRNA splicing during development, and there has never been a systematic study of splicing events and how they coordinate developmental changes during cardiac morphogenesis. To examine whether splicing changes were occurring during cardiac development, RT-PCR was used to analyze splicing patterns in the heart during various stages of development. We identified 144 variable regions in 75 genes in the heart. 10 out of the 40 variable regions tested so far have exhibited changes in alternative splicing during heart development, demonstrating that alternative splicing is dynamic during embryogenesis. Funded by the Basil O'Connor Starter Scholar Research Award from the March of Dimes.

(PS.60.a) “BL 260 Biological Consequences of Poverty, A New Course on Poverty and Health”

*Dr. Jim Lissemore, Biology
During the Fall 2006 semester, I taught a new course, BL 260 Biological Consequences of Poverty, focusing on the links between poverty and health. The specific goals of the course included providing: a basic understanding of global and domestic poverty, public health, and epidemiology; basic understanding of the biological consequences of poverty on domestic and global health; basic understanding of evolutionary factors in disease; a direct experience of public health problems in the city of Cleveland through community-based learning; awareness of career opportunities in public health and related areas; and awareness of ethical issues in public health research, prevention, and treatment. More information about the course and preliminary results of student surveys and evaluations will be presented. Development of this course was supported by a JCU Ethics Course Development Fellowship during Summer 2006.

