



Rudolfo Aguilar

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**Let's Organize! El Zocalo Urbano and Youth
Mobilization in the Immigrant Marches**
Faculty Mentor: Dr. Nilda Flores-Gonzalez

On March 10, 2006, more than 100,000 people marched from Union Park to Federal Plaza to oppose pending federal immigration legislation. This unprecedented act surpassed the expectations of immigrant rights organizers by being the first and largest demonstration of this order in Chicago and the nation. As the Senate met to consider a bill that would allow the legalization of many of the estimated 11 million undocumented people living in this country massive marches took place in several cities of the nation such as Los Angeles, Dallas, Orlando, New York, Phoenix and Atlanta. On May 1, 2006 more than 600,000 people marched from Union Park to Grant Park in support of the legalization of undocumented immigrants. While most participants were Latinos, European, Asian and African immigrant groups were visible. What was most striking about this march was the overwhelming presence of youth. The paper will examine the role of El Zócalo Urbano in organizing and mobilizing youth from the Pilsen community—a predominantly Mexican immigrant community.



Dariusz Barwacz

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**Students with Disabilities in Higher Education: Access to
Information and Websites Evaluation of Fifteen Major
Universities in the Chicagoland Area**

Faculty Mentor: Dr. Fabricio Balcaszar

The web is becoming a critical entry point for information to potential university students applying for college. A web-based survey examined the information available for students with disabilities on websites of fifteen major universities in the Chicagoland area. The research looked for websites accessibility, list of disability related accommodations and services offered by the universities, campus accessibility, and how easy is to retrieve the information by students with disabilities. The preliminary results of the audit show limited accessibility of the universities' websites, discrepancies in the amount of web based information, lack of standardization in the terms used in describing relevant services, and difficulty in locating the information. The preliminary research findings show a need for improvement of the accessibility of the universities' websites. In addition, the results suggest a need for universal guidelines in terms of what information should be available on the universities' websites and places where the information should be located.



Adrian Begaye

University of Arizona

Optimization of an Assay for the Chymotrypsin- like Protease (3Clpro) from SARS Virus

Faculty Mentors: Dr. Andrew Mesecar and Dr. Valerie Grum- Tokars

The chymotrypsin-like or 3C-like protease (3Clpro) provides a key regulation site for the severe acute respiratory syndrome human coronavirus (SARS-CoV) for its functional role in the proteolytic processing of viral polyproteins. The significance of the enzyme in the formation of a replicase complex that mediates SARS-CoV viral replication and transcription allowed the development of anti-SARS treatments. Numerous studies on SARS-CoV 3CLpro have been performed with the use of an N-terminus (His)6-tag version of the enzyme, which is commonly used for a rapid, single-step affinity-based purification. However, due to the tertiary structure of the enzyme, the (His)6-tag may interfere directly with the active site, which is composed of a catalytic dyad between Cysteine 145 and Histidine 41, and negatively impact SARS-CoV 3CLpro activity. Moreover, the tagged version may even contribute to a decrease in activity by preventing proper dimerization of the enzyme, where it is expected to be fully active. This investigation seeks to directly compare the enzymatic activity between the two distinct states, a (His)6-tagged and an untagged, native state by examining kinetic behavior, structure, and the effectiveness of designed inhibitors and treatments.



Kevin Bond, Jr.

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**The Focus of Gentrification Studies with Emphasis
on Chicago's Near West Side: A Study of Studies**

Faculty Mentor: Dr. Kathleen Rizzo

Gentrification is the displacement of low-income residents and small business venues to obtain an influx of better commerce sought by higher-income residents. Before the 1960s and 1970s, this process was completely foreign to the residents of Chicago's Near West Side. More recently, the leading risk indicators of gentrification here are the high percentage of renters and the convenience of Downtown proximity. Gentrification has also become a debatable issue by those who have either endured its hardships or those who have gained from its benefits. This research examines gentrification's emphasis toward business, particularly those associated in Chicago and the Near West Side. By performing a systematic literature analysis on a sample of gentrification research literatures this was accomplished. Results suggest that although gentrification in this area is inevitable, the main focus in current literature has failed to give adequate attention to the small businesses in and around Maxwell Street.



Laura De Los Santos

University of Illinois
at Chicago

**Women of Chicago as Victims of and Advocates
against Sterilization Abuse: A Historic Overview**

Faculty Mentor: Dr. Elena Gutierrez

At the end of the 19th and into the 20th Century, there was great concern regarding population growth and who was fit to reproduce. Proponents of eugenics advocated selective reproduction which led to sterilization abuses that came to light during the 1960's and 1970's. In many hospitals within the United States and abroad, sterilization abuse became common practice and thousands of women were involuntarily sterilized. While activists were often middle class educated women, the victims of these abuses were most often poor women of color. There has been documentation and analysis of these abuses from California to New York, but the role of Chicago women as victims and advocates has been largely ignored. Through newspaper accounts, interviews with doctors and organizational documents, this study retraces Chicago history, and chronicles how organizations such as The Chicago Women's Liberation Union and the Chicago chapter of C.E.S.A. contributed to the enactment of laws that are with us today.



Nora Garcia



**University of Illinois
at Urbana-Champaign**

**An Exploratory Study of Political Identity Formation
in Urban Latina Adolescents**

Faculty Mentor: Dr. Elena Gutierrez

Political identity formation is the variable process of political socialization into society. Examination of adolescent Latina political identity formation are non-existent, yet imperative given that Latinas/os are the largest and youngest minority population. This study is significant because it is the first to focus solely on the mechanisms and implications of political development among Latina youth. This exploratory project focuses on the political identity formation and engagement of urban Latina adolescents. Utilization of theoretical frameworks pertaining to urban, ethnic and gender identity were linked with field observations and surveys conducted in a Chicago community center. The aim was to locate factors that impede and/or promote political identity formation among Latina adolescents. Empirically, the research highlights several conditions and characteristics that affect the likelihood that an urban, Latina adolescent can develop a political identity and consciousness that has a substantive effect on political participation as an adult. It also finds that factors involved in adolescent political identity formation are varied according to gender, location, ethnicity and class status.

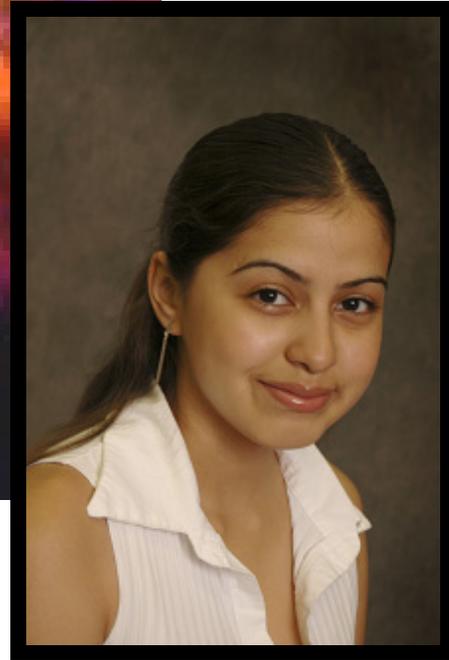


Jeffrey Osuji

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**Purification and Crystallization Trials of Type 2
PMI from *Pseudomonas aeruginosa***
Faculty Mentor: Dr. Connie Jeffery

*This experiment deals with the purification and crystallization trials of phosphomannose isomerase-guanosine 5'-diphospho-D-mannose (PMI-GDP) for the purpose of structural studies. Type 1 PMI is found in mammalian cells; however, in this experiment we are dealing with a Type 2 PMI protein that is produced by the bacterium *Pseudomonas aeruginosa*. PMI-GDP is a bi-functional enzyme that plays a role in the biosynthetic pathway of alginate, a mucousy exopolysaccharide. *P. aeruginosa* is the cause of many infections including pulmonary, respiratory, urinary tract, and dermatitis and is extremely resistant to antibiotics. The protein is being expressed recombinantly in *E. coli* bacteria. We plan to use the pure protein in crystallization trials so that, in the future, further understanding of the structure and mechanisms of function will lead to drug discovery.*



Brenda Pacheco



Northeastern Illinois University

The Impact of Greater Englewood Healthy Start Case Management Program on Disparities of Birth Among Mexican/ Mexican American Women

Faculty Mentor: Dr. Cynthia Barnes-Boyd

While much effort has been made in the reduction of infant mortality rates, birth disparities among Latino women are being neglected. The aim of this study is to validate the survey tool used in the evaluation of an infant mortality intervention. The intervention is designed to reduce birth disparities among ethnic minority women. This project examined two survey instruments for validity and reliability. A consensus method was used to revise the survey questions. Following revision, the validity of the instrument was tested with a convenience sample of 10 individuals. Data obtained from the interviews was analyzed through simple descriptive statistics and compiled for use on the parent project. Though the parent project is still in its early phases, it is hypothesized that a case management program will reduce infant mortality rates.



Michael Adam Palmer

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Texas State University

**Adolescents with Psychiatric Disorders: Correlating
Personality with Risky Behavior**

Faculty Mentor: Dr. Brian Mustanski

Adolescence has been characterized as a period of increased risk-taking behaviors such as unsafe sexual practices and experimentation with drugs and alcohol. Psychiatric disorders such as bipolar disorder, post traumatic stress disorder, depression, and psychoses often produce a lack of reasoning and foresight and therefore create a stronger susceptibility to such behavior. The purpose of this research is to establish whether a correlation exists between the three dimensions of personality, Sensation Seeking (SS), Impulsivity (IM), and Harm Avoidance (HA), and specific risk behaviors among adolescents with psychiatric disorders. Three risk behaviors will be examined: sexual risk taking (i.e., number of partners and condom usage), drug risk behavior, and alcohol risk behavior (i.e., quantity and frequency of use). Questionnaires will be completed by approximately 50 adolescents in therapeutic schools in the Chicago area and correlations between the different personality constructs and the risk behaviors will be determined based upon Pearson correlations. It is hypothesized that high levels of SS and IM and low levels of HA will be positively correlated to the commission of the three risk behaviors.



S. Leah Stokes



Jackson State University

Identifying Regulatory Elements of Hepatitis B Virus Transcription

Faculty Mentor: Dr. Alan McLachlan

The human hepatitis B virus (hbv) core promoter directs the expression of two functionally distinct transcripts, the precore and pregenomic RNAs. The precore RNA encodes the precore polypeptide, which yields HBeAg. The pregenomic RNA encodes both the core polypeptide transcriptase and also serves as a template for DNA replication. From previous studies, the regulatory elements of the nucleocapsid promoter have been partially characterized. However, the regulatory elements controlling the initiation of the precore and core RNAs have not been precisely defined. Using mutational analysis, we aim to determine the precise nucleotide sequences governing the correct initiation of both these transcripts. It is our hope to determine if these regulatory elements are separate sequence elements, partially overlapping elements, or the same sequence elements.



Desiree Wright



University of Florida

**Confused Chameleon or Cunning Cosmopolitan?:
Rethinking Shifting Among Multiracial People**

Faculty Mentor: Dr. Kerry Ann Rockquemore

Researchers studying the rapidly growing mixed-race population have struggled to understand their racial identity development process. Empirical studies document that multiracial people choose between the following identification strategies: identifying exclusively with one race, creating a hybrid identity that combines their two races, refusing any racial identification, or shifting between different racial identities based on their context. This paper questions whether shifting identities is a separate strategy of identification used by only a small number of mixed-race people, or whether all mixed-race people exhibit some form of identity shifting. An analysis of 20 in-depth interviews illustrates the need for researchers to fundamentally rethink the meaning of identity shifting to include a more nuanced understanding of the many different ways that multiracial people shift their behavior, self-presentation, and identity labels over their lifespan.